

# JVC

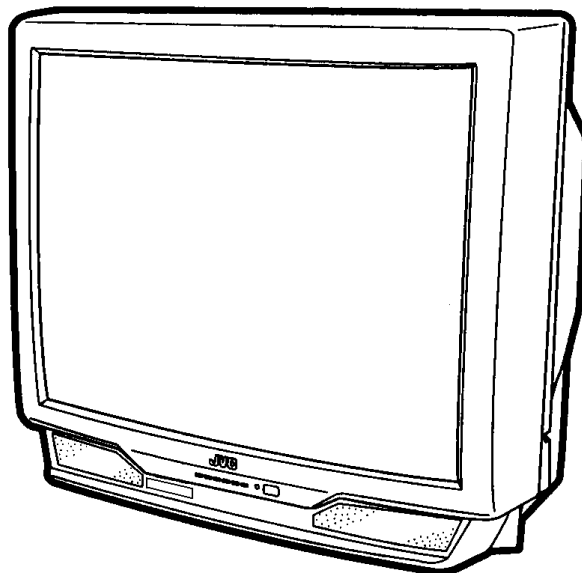
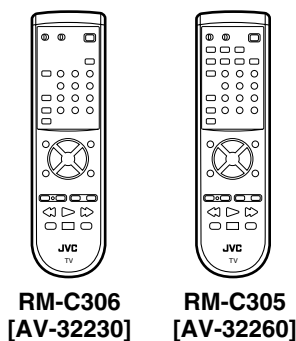
## SERVICE MANUAL

### COLOR TELEVISION

BASIC CHASSIS

AC

**AV-32230** /G    **AV-32260** /G  
**AV-32230** /H    **AV-32260** /H  
**AV-32230** /M    **AV-32260** /M



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# SPECIFICATIONS

Items	Contents
<b>Dimensions (W × H × D)</b>	30-1/4" × 26-1/4" × 21-1/2" / 76.8cm × 66.7cm × 54.7cm
<b>Mass</b>	112.2 lbs / 51.0 kg
<b>TV RF System</b>	CCIR(M)
<b>Color Sound System</b>	NTSC, BTSC System (Multi Channel Sound)
<b>TV Receiving Channels and Frequency</b>	
<b>VL Band</b>	(02~06) 54MHz~88MHz
<b>VH Band</b>	(07~13) 174MHz~216MHz
<b>UHF Band</b>	(14~69) 470MHz~806MHz
<b>CATV Receiving Channels and Frequency</b>	
<b>Low Band</b>	(02~06, A-8) by (02~06&01)
<b>High Band</b>	(07~13) by (07~13)
<b>Mid Band</b>	(A~1) by (14~22)
<b>Super Band</b>	(J~W) by (23~36)
<b>Hyper Band</b>	(W+1~W+28) by (37~64)
<b>Ultra Band</b>	(W+29~W+84) by (65~125)
<b>Sub Mid Band</b>	(A8, A4~A1) by (01, 96~99)
<b>TV/CATV Total Channel</b>	180 Channels
<b>Intermediate Frequency</b>	
<b>Video IF Carrier</b>	45.75MHz
<b>Sound IF Carrier</b>	41.25MHz (4.5MHz)
<b>Color Sub Carrier</b>	3.58MHz
<b>Power Input</b>	120V AC, 60Hz
<b>Power Consumption</b>	133W [AV-32260], 128W [AV-32230]
<b>Picture Tube</b>	32" (80cm) Measured Diagonally
<b>High Voltage</b>	31kV±1.3kV (at zero beam current)
<b>Speaker</b>	2" × 4-3/4" / 5 × 12cm Oval type × 2
<b>Audio Power Output</b>	3W × 2
<b>Video / Audio Input (1 / 2 / 3)</b>	Video(1,2,3) : 1Vp-p, 75Ω (RCA pin jack) Audio(1,2,3) : 500mVrms ( -4dBs ), High Impedance (RCA pin jack) S-Video ( Input 1 Over ) Y : 1Vp-p Positive (negative sync provided, when terminated with 75Ω) C : 0.286Vp-p (burst signal, when terminated with 75Ω) Component Input ( Input 2 ) Y : 1Vp-p positive (negative sync provided, when terminated with 75Ω) P <sub>B</sub> /P <sub>R</sub> : 0.7Vp-p 75 Ω
<b>Audio Output (Variable)</b>	Variable : More then 0~1550mVrms (+6dBs) Low impedance (400Hz when modulated 100%) (RCA pin jack)
<b>AV Compu link EX Input</b>	3.5mm mini jack
<b>Antenna terminal</b>	75Ω(VHF/UHF) Terminal, F-Type Connector
<b>Remote Control Unit</b>	RM-C305-1A [AV-32260], RM-C306-1A [AV-32230] (AA/R6/UM-3 battery × 2)

*Design & specifications are subject to change without notice.*

# SAFETY PRECAUTIONS

1. The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by ( ⚡ ) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.
4. **Use isolation transformer when hot chassis.**  
The chassis and any sub-chassis contained in some products are connected to one side of the AC power line. An isolation transformer of adequate capacity should be inserted between the product and the AC power supply point while performing any service on some products when the HOT chassis is exposed.
5. **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**  
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : ( ⊥ ) side GND, the ISOLATED(NEUTRAL) : ( ⚡ ) side GND and EARTH : ( ⊕ ) side GND. Don't short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND at the same time.  
If above note will not be kept, a fuse or any parts will be broken.
6. If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See ADJUSTMENT OF B1 POWER SUPPLY).
7. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
8. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.
9. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

## 10. Isolation Check

### (Safety for Electrical Shock Hazard)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

### (1) Dielectric Strength Test

The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 1100V AC (r.m.s.) for a period of one second.

(... Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)

This method of test requires a test equipment not generally found in the service trade.

### (2) Leakage Current Check

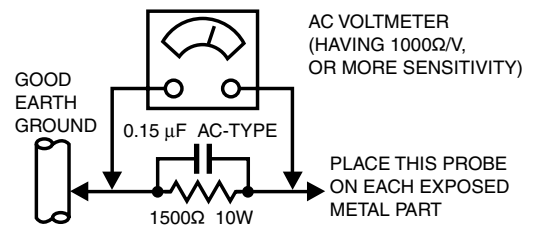
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).

However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

#### ● Alternate Check Method

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).

However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



## 11. High voltage hold down circuit check.

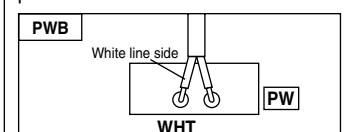
After repair of the high voltage hold down circuit, this circuit shall be checked to operate correctly.

See item "How to check the high voltage hold down circuit".

This mark shows a fast operating fuse, the letters indicated below show the rating.



**POWER CORD REPLACEMENT WARNING**  
Connecting the white line side of power cord to "WHT" character side.



## REPLACEMENT OF CHIP COMPONENT

### ■ CAUTIONS

1. Avoid heating for more than 3 seconds.
2. Do not rub the electrodes and the resist parts of the pattern.
3. When removing a chip part, melt the solder adequately.
4. Do not reuse a chip part after removing it.

### ■ SOLDERING IRON

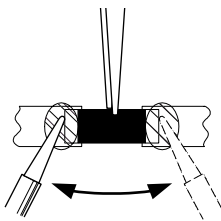
1. Use a high insulation soldering iron with a thin pointed end of it.
2. A 30w soldering iron is recommended for easily removing parts.

### ■ REPLACEMENT STEPS

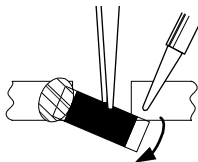
#### 1. How to remove Chip parts

##### ◆ Resistors, capacitors, etc.

- (1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.

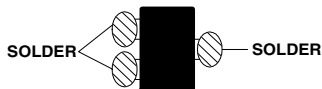


- (2) Shift with tweezers and remove the chip part.

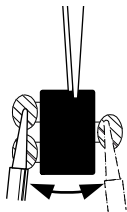


##### ◆ Transistors, diodes, variable resistors, etc.

- (1) Apply extra solder to each lead.



- (2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.

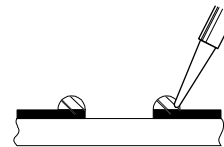


*Note : After removing the part, remove remaining solder from the pattern.*

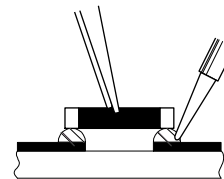
#### 2. How to install Chip parts

##### ◆ Resistors, capacitors, etc.

- (1) Apply solder to the pattern as indicated in the figure.

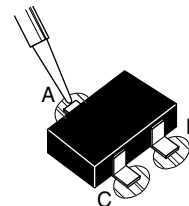


- (2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

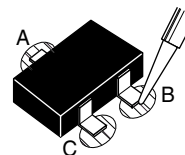


##### ◆ Transistors, diodes, variable resistors, etc.

- (1) Apply solder to the pattern as indicated in the figure.
- (2) Grasp the chip part with tweezers and place it on the solder.
- (3) First solder lead **A** as indicated in the figure.



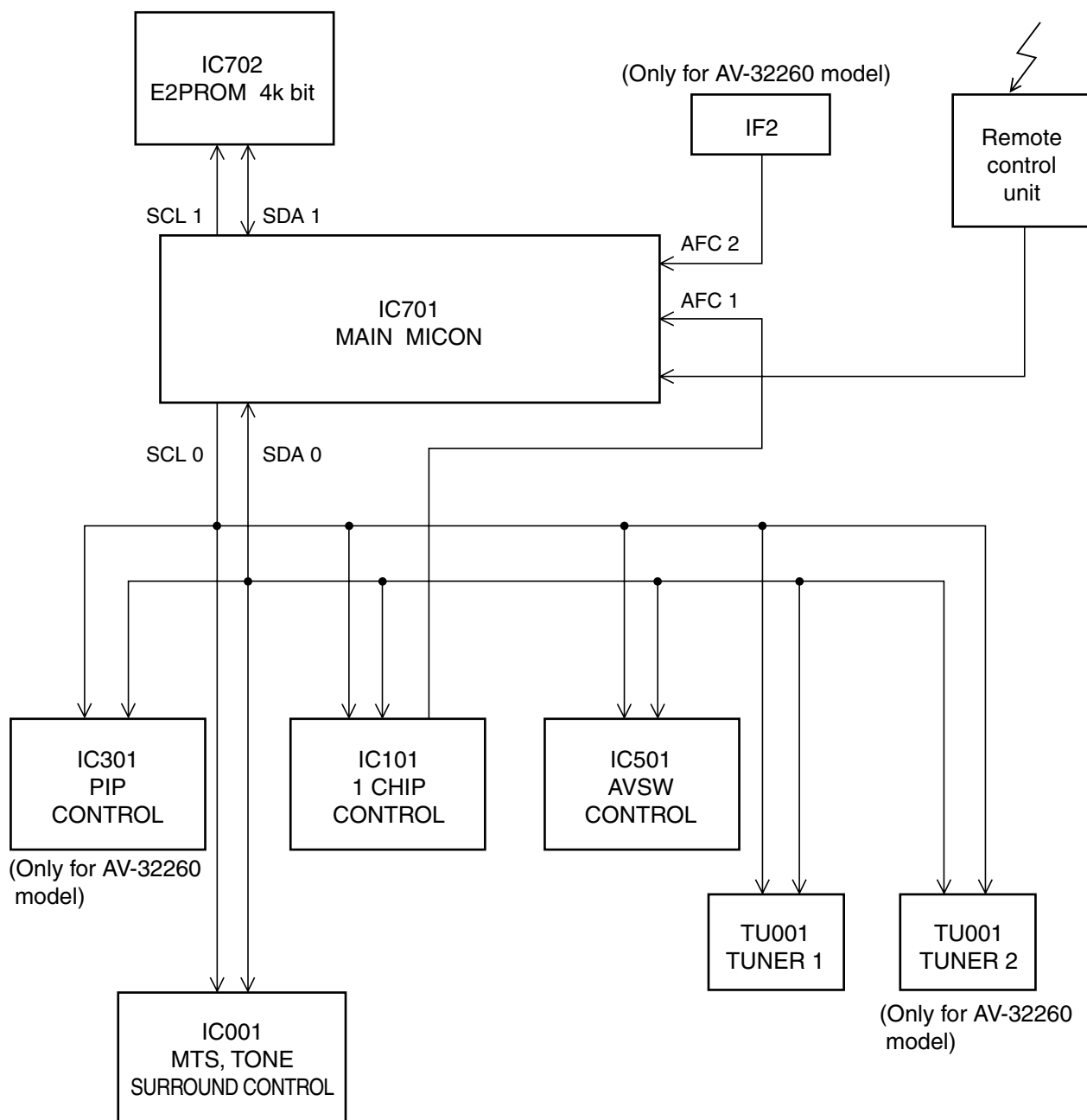
- (4) Then solder leads **B** and **C**.



# FEATURES

- Full-square CRT (cathode ray tube) reproduces fine textured picture in every detail.
- I<sup>2</sup>C bus control utilizes single chip ICs.
- Built in Twin Tuner system. [Only for AV-32260 model]
- Built-in HYPER-SURROUND system.
- Adoption of the Picture-In-Picture (PIP) function. [Only for AV-32260 model]
- 3 LINE DIGITAL COMB FILTER circuit improved picture quality.
- Component input terminal for taking best advantage of Component Video Signal.
- Audio Video input terminal. (S-input ×1, V-input ×2)
- Variable audio output terminal.
- Closed-caption broadcasts can be viewed.
- With AV COMPU LINK EX terminal.

## ■ SYSTEM BLOCK DIAGRAM



MAIN DIFFERENCE LIST

[AV-32230/G & AV-32230/H & AV-32230/M]

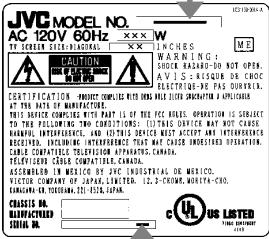
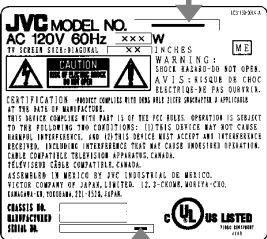
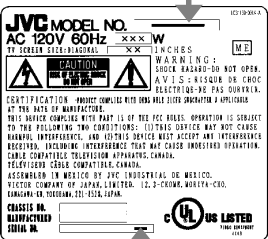
⚠	Model Part name	AV-32230/G	AV-32230/H	AV-32230/M
	MAIN PWB	SAC-1535A-M2	SAC-1536A-M2	SAC-1537A-M2
	CRT SOCKET PWB	SAC-3508A-M2	SAC-3509A-M2	SAC-3510A-M2
⚠	PICTRE TUBE	A80QCF240X14L	A80LJF30X08-G	M80JUA061X06
⚠	DEG. COIL	QQW0086-001	CELD066-002JA	←

[AV-32260/G & AV-32260/H & AV-32260/M]

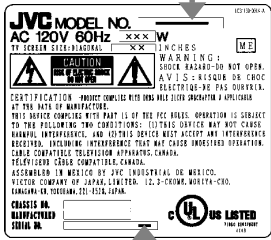
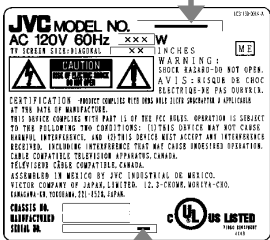
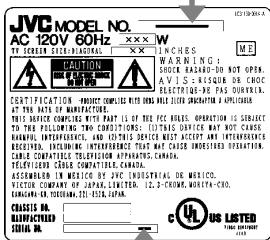
⚠	Model Part name	AV-32260/G	AV-32260/H	AV-32260/M
	MAIN PWB	SAC-1529A-M2	SAC-1530A-M2	SAC-1531A-M2
	CRT SOCKET PWB	SAC-3508A-M2	SAC-3509A-M2	SAC-3510A-M2
⚠	PICTURE TUBE	A80QCF240X14L	A80LJF30X08-G	M80JUA061X06
⚠	DEG. COIL	QQW0086-001	CELD066-002JA	←

HOW TO IDENTIFY MODELS

- The difference between AV-32230/G , AV-32230/H and AV-32230/M is in the PICTURE TUBE.  
As the result of the difference in PICTURE TUBE, the MAIN PWB also differ.

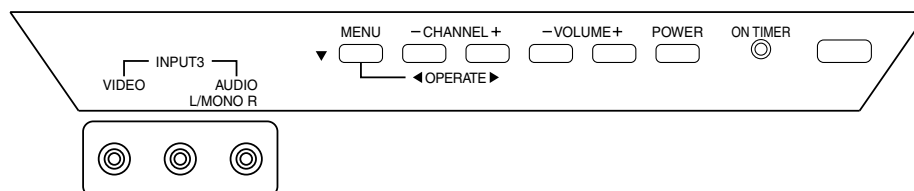
⚠	Model Part name	AV-32230/G	AV-32230/H	AV-32230/M
⚠	RATING LABEL	LC31139-001A-A	←	←
		<div>INDICATED AV-32230</div> <div></div> <div>INDICATED "G"</div>	<div>INDICATED AV-32230</div> <div></div> <div>INDICATED "H"</div>	<div>INDICATED AV-32230</div> <div></div> <div>INDICATED "M"</div>

- The difference between **AV-32260/G** , **AV-32260/H** and **AV-32260/M** is in the PICTURE TUBE.  
As the result of the difference in **PICTURE TUBE**, the **MAIN PWB** also differ.

Part name	Model	AV-32260/G	AV-32260/H	AV-32260/M
RATING LABEL		LC31139-001A-A	←	←
		<p>INDICATED AV-32260</p>  <p>INDICATED "G"</p>	<p>INDICATED AV-32260</p>  <p>INDICATED "H"</p>	<p>INDICATED AV-32260</p>  <p>INDICATED "M"</p>

# FUNCTIONS

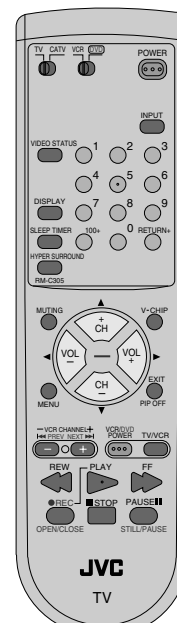
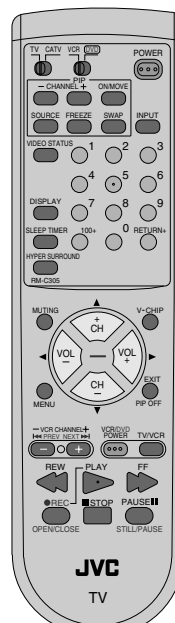
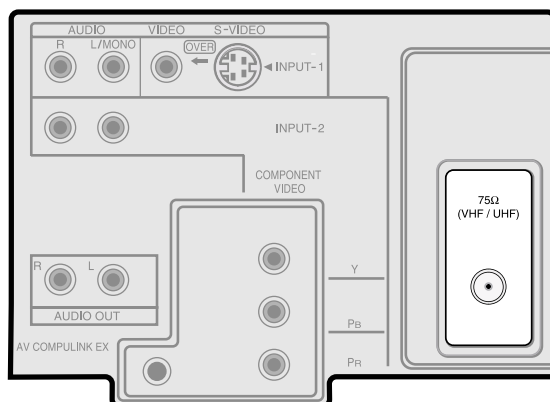
## FRONT PANEL



## REMOTE CONTROL UNIT (RM-C305-1A) [AV-32260]

## (RM-C306-1A) [AV-32230]

## REAR PANEL



# SPECIFIC SERVICE INSTRUCTIONS

## DISASSEMBLY PROCEDURE

### REMOVING THE REAR COVER

1. Unplug the power supply cord.
2. Remove the 11 screws marked (A) as shown in Fig.1.
3. Withdraw the REAR COVER toward you.

#### [CAUTION]

- When reinstalling the rear cover, carefully push it inward after inserting the MAIN PWB into the rear cover groove.

### REMOVING THE CHASSIS

- After removing the rear cover.
1. Slightly raise the both sides of the chassis by hand and remove the 3 claws marked (B) under the chassis from the front cabinet as shown in Fig.1.
  2. Withdraw the chassis backward along the rail in the arrow direction marked (C) as shown in Fig.1.

(If necessary, take off the wire clamp, connector's etc.)

\* When conducting a check with power supplied, be sure to confirm that the CRT earth wire is connected to the CRT SOCKET PWB and the MAIN PWB.

### REMOVING THE TERMINAL BOARD

- After removing the rear cover.
1. Remove the 4 screws marked (D) as shown in Fig.1.
  2. When you pull out the TERMINAL BOARD in the direction of arrow marked (E) as shown in Fig.1, it can be removed.

### REMOVING THE FRONT CONTROL AND FRONT AV INPUT PW BOARDS

- After removing the rear cover and chassis.
1. Remove the 2 screws marked (F) and the 2 screws marked (G) as shown in Fig.1.
  2. Then remove the FRONT CONTROL PWB and FRONT AV INPUT PWB.
- (If necessary, take off the wire, connector's etc.)

### REMOVING THE LF PW BOARD

- After removing the rear cover and chassis.
1. Lift the left side of the LF PWB while pressing the 2 PWB stoppers marked (H) in the arrow direction marked (I) as shown in Fig.1.
  2. Then remove the LF PWB.
- (If necessary, take off the wire, connector's etc.)

### REMOVING THE SPEAKER

- After removing the rear cover.
1. Remove the 2 screws marked (K) as shown in Fig.1.
  2. Withdraw the speaker backward.
  3. Follow the same steps when removing the other hand speaker.

### CHECKING THE MAIN PW BOARD

1. To check the back side of the MAIN PW Board.
  - 1) Pull out the chassis. (Refer to REMOVING THE CHASSIS).
  - 2) Erect the chassis vertically so that you can easily check the back side of the MAIN PW Board.

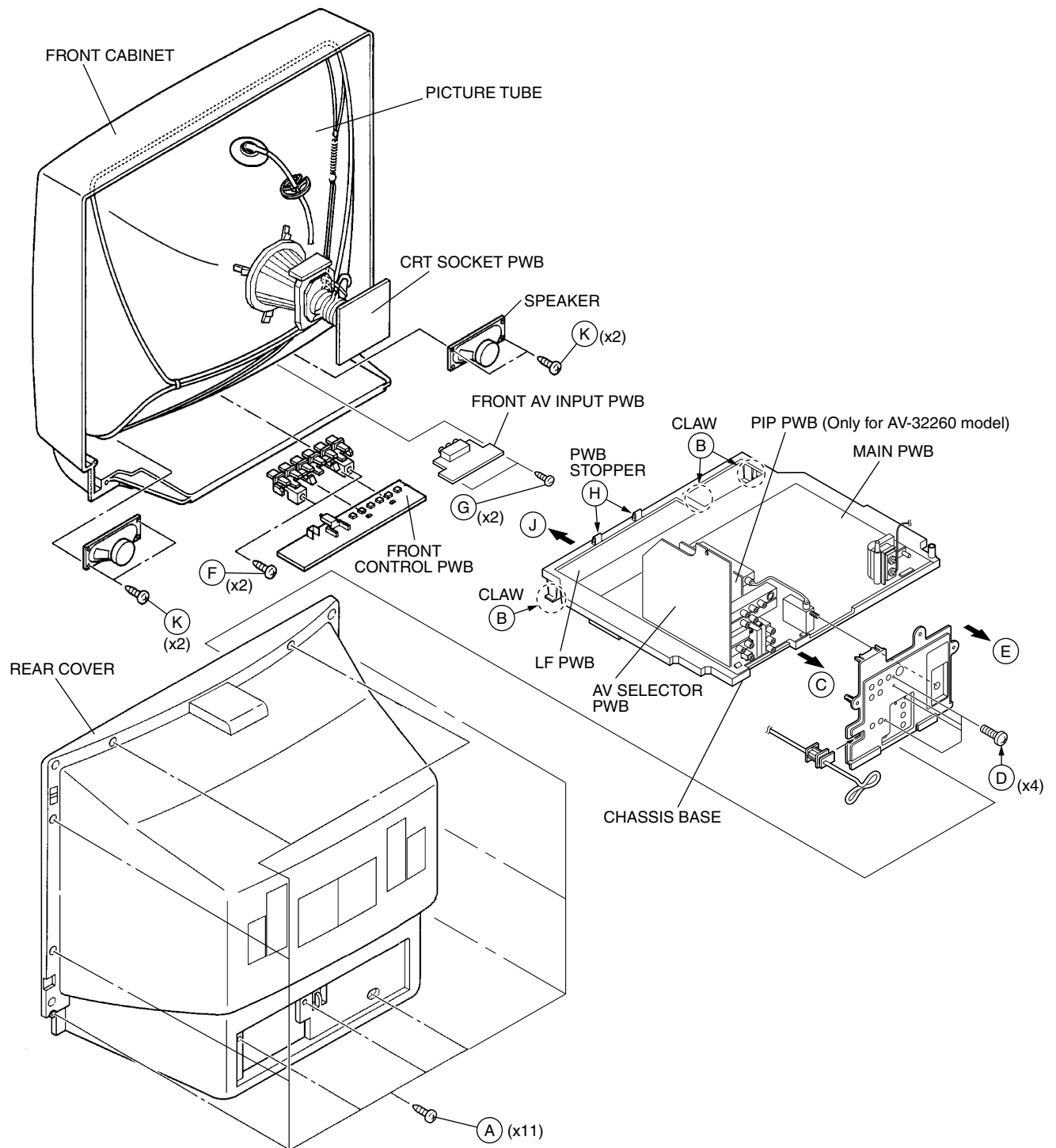
#### [CAUTION]

- When erecting the chassis, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the CRT earth wire and other connectors are properly connected.

### WIRE CLAMPING AND CABLE TYING

1. Be sure clamp the wire.
2. Never remove the cable tie used for tying the wires together. Should it be inadvertently removed, be sure to tie the wires with a new cable tie.





**Fig.1**

## REMOVING THE CRT

\* Replacement of the CRT should be performed by 2 or more persons.

- After removing the rear cover, chassis etc.,
  - 1. Putting the CRT change table on soft cloth, the CRT change table should also be covered with such soft cloth (shown in Fig.2).
  - 2. While keeping the surface of CRT down, mount the TV set on the CRT change table balanced will as shown in Fig.3.
  - 3. Remove 4 screws marked by arrows with a box type screwdriver as shown in Fig.3.
  - Since the cabinet will drop when screws have been removed, be sure to support the cabinet with hands.
  - 4. After 4 screws have been removed, put the cabinet slowly on cloth (At this time, be carefully so as not to damage the front surface of the cabinet) shown in Fig.4.
  - The CRT should be assembled according to the opposite sequence of its dismantling steps.
- \* The CRT change table should preferably be smaller than the CRT surface, and its height be about 35cm.

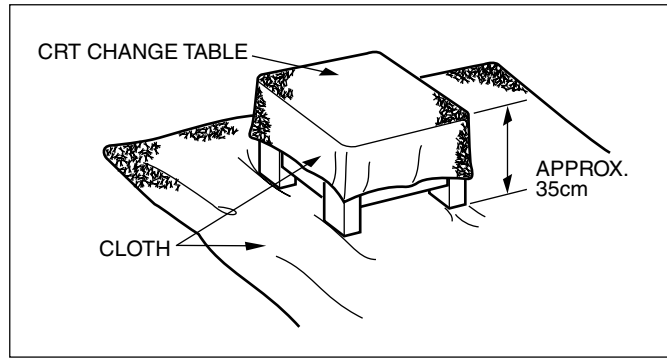


Fig. 2

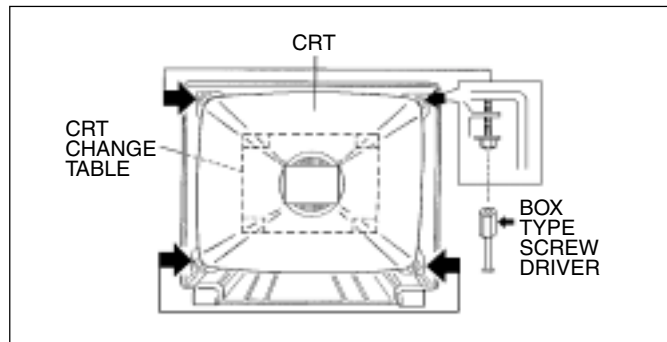


Fig. 3

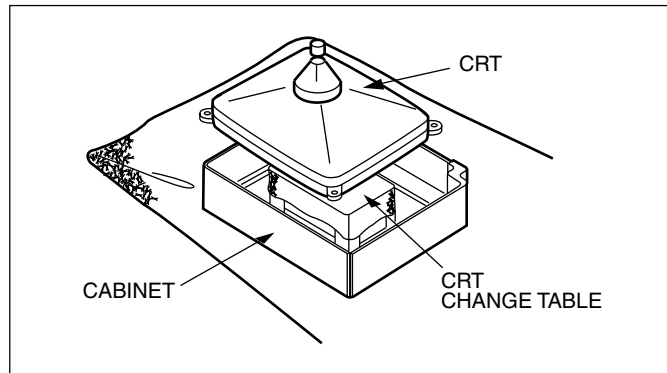


Fig. 4

## COATING OF SILICON GREASE FOR ELECTRICAL INSULATION ON THE CRT ANODE CAP SECTION.

- Subsequent to replacement of the CRT and HV transformer or repair of the anode cap, etc. by dismantling them, be sure to coat silicon grease for electrical insulation as shown in Fig.5.
- Wipe around the anode button with clean and dry cloth. (Fig.5)  
Coat silicon grease on the section around the anode button. At this time, take care so that any silicon greases dose not sticks to the anode button. (Fig.6)

★ Silicon grease product No. KS - 650N

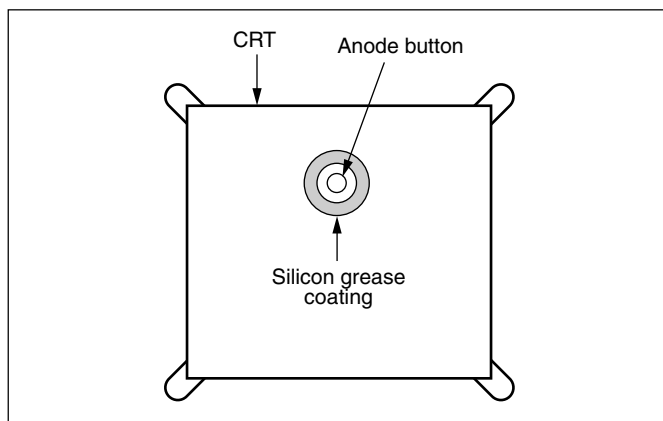


Fig. 5

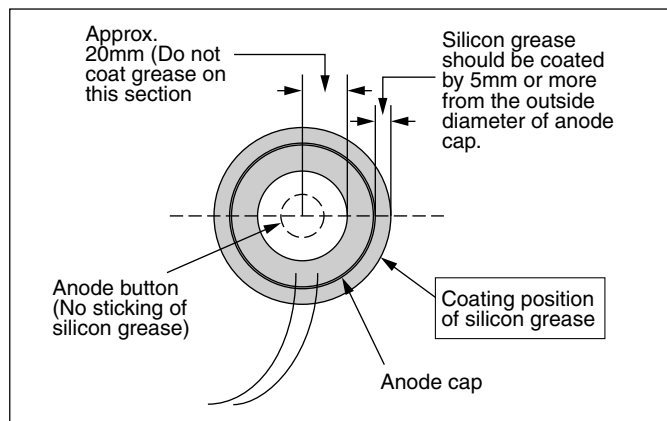


Fig. 6

# MEMORY IC REPLACEMENT

## 1. Memory IC

This model use a memory IC.  
This memory IC stores data for proper operation of the video and deflection circuits.  
When replacing, be sure to use an IC containing this (initial value) data.

## 2. Memory IC replacement procedure

Procedure	Screen display
<b>(1) Power off</b> Switch off the power and disconnect the power cord from the outlet.	
<b>(2) Replace the memory IC</b> Initial value must be entered into the new IC.	
<b>(3) Power on</b> Connect the power cord to the outlet and switch on the power.	
<b>(4) System constant check and setting</b> <ol style="list-style-type: none"> <li>1) Press <b>SLEEP TIMER</b> key and, while the indication of "<b>SLEEP TIMER 0 MIN.</b>" is being displayed, press <b>DISPLAY</b> key and <b>VIDEO STATUS</b> key on the remote control unit simultaneously.</li> <li>2) The SERVICE MENU screen of Fig.1 is displayed.</li> <li>3) While the SERVICE MENU is displayed, again simultaneously press the DISPLAY and VIDEO STATUS keys to display the Fig.2 SYSTEM CONSTANT screen.</li> <li>4) Refer to the SYSTEM CONSTANT table and check the setting items. Where these differ, select the setting item with the MENU UP/DOWN key and adjust the setting with the MENU LEFT/RIGHT keys. (The letters of the selected item are displayed in yellow.)</li> <li>5) After adjusting, release the MENU LEFT/RIGHT key to store the setting value.</li> <li>6) Press the EXIT key twice to return the normal screen.</li> </ol>	<div data-bbox="1036 814 1453 1123"> </div> <p>[AV-32230]</p> <div data-bbox="1036 1182 1453 1491"> </div> <p>[AV-32260]</p> <p>Fig.1</p> <div data-bbox="1036 1589 1453 1898"> </div> <p>Fig.2</p>
<b>(5) Receive channel setting</b> Refer to the OPERATING INSTRUCTIONS(USER'S GUIDE) and set the receive channels (Channels Preset) as described.	
<b>(6) User settings</b> Check the user setting items according to Table 2. Where these do not agree, refer to the OPERATING INSTRUCTIONS (USER'S GUIDE) and set the items as described.	
<b>(7) SERVICE MENU setting</b> Verify what to set in the SERVICE MENU, and set whatever is necessary.(Fig.1) Refer to the SERVICE ADJUSTMENT for setting.	

**TABLE 1 (System Constant setting)**

Setting item	Setting content	Setting value	
		AV-32230	AV-32260
MODEL		AV-32230	AV-32260
PURITY		NO	
CCD		YES	
V-CHIP		YES	
CAN V-CHIP		YES	

**TABLE 2 (User setting value)**

Setting item	Setting value
<b>1. Use remote controller keys</b>	
POWER	OFF
CHANNEL	CH-02
VOLUME	5
INPUT	TV
HYPER SURROUND	OFF
DISPLAY	OFF
SLEEP TIMER	0
VIDEO STATUS	CHOICE
PIP SOURCE	CH-04
PIP ON (PIP POSITION)	LEFT LOWR SIDE } Only for AV-32260 model
<b>2. Setting of MENU</b>	
<b>PICTURE ADJUST</b>	
TINT	CENTER
COLOR	CENTER
PICTURE	CENTER
BRIGHT	CENTER
DETAIL	CENTER
NOISE MUTING	ON
SET VIDEO STATUS	ALL CENTER
<b>SOUND ADJUST</b>	
BASS	CENTER
TREBLE	CENTER
BALANCE	CENTER
MTS	STEREO
<b>CLOCK/TIMERS</b>	
SET CLOCK	Unnecessary to set
ON/OFF TIMER	NO
<b>INITIAL SETUP</b>	
TV SPEAKER	ON
COMPONENT-IN	NO
LANGUAGE	ENG
CLOSED CAPTION	OFF
AUTO TUNER SETUP	TUNER MODE : AIR
CHANNEL SUMMARY	Unnecessary to set
V-CHIP	OFF
SET LOCK CODE	Unnecessary to set

# SERVICE ADJUSTMENTS

## ADJUSTMENT PREPARATION:

1. You can make the necessary adjustments for this unit with either the remote control unit or with the adjustment equipment and parts as given below.
2. Adjustment with the remote control unit is made on the basis of the initial setting values, however, the new setting values which set the screen to its optimum condition may differ from the initial settings.
3. Make sure that AC power is turned on correctly.
4. Turn on the power for the set and test equipment before use, and start the adjustment procedures after waiting at least 30 minutes.
5. Unless otherwise specified, prepare the most suitable reception or input signal for adjustment.
6. Never touch any adjustment parts, which are not specified in the list for this adjustment-variable resistors, transformers, capacitors, etc.
7. Presetting before adjustment.

Unless otherwise specified in the adjustment instructions, preset the following functions with the remote control unit.

- User mode setting position

VIDEO STATUS	STANDARD
HYPER SURROUND	OFF
BASS, TREBLE, BALANCE	CENTER
TINT, COLOR, PICTURE, BRIGHT, DETAIL	CENTER

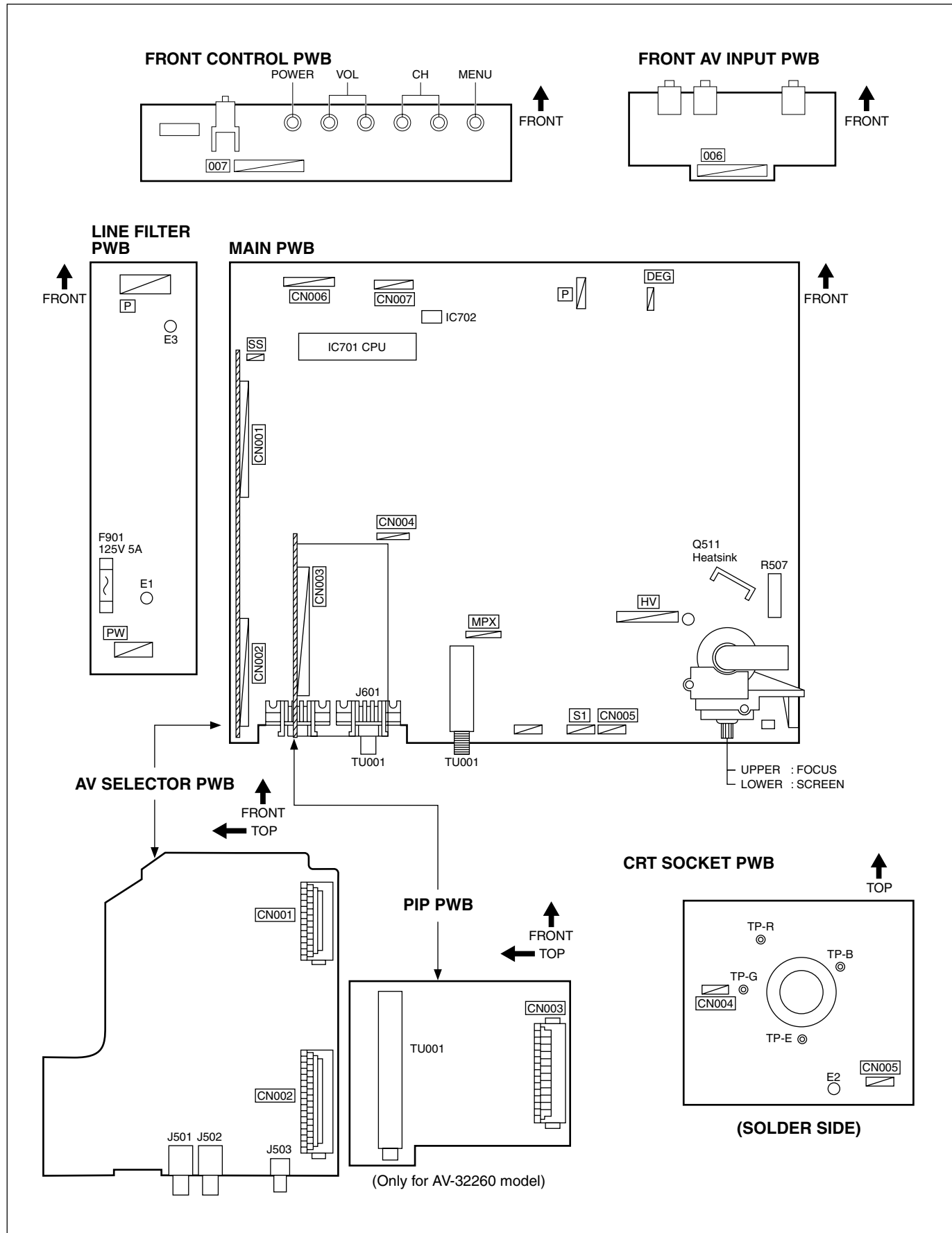
## MEASURING INSTRUMENT

1. DC voltmeter(or digital voltmeter)
2. Oscilloscope
3. Signal generator ( Pattern generator ) [NTSC]
4. Remote control unit
5. TV audio multiplex signal generator
6. Frequency counter
7. Resistor (1M $\Omega$ )

## ADJUSTMENT ITEMS

- Check of B1 POWER SUPPLY
- RF AGC adjustment
- FOCUS adjustment
- WHITE BALANCE adjustment
  - WHITE BALANCE (Low Light) adjustment
  - WHITE BALANCE (High Light) adjustment
  - PIP HIGH LIGHT WHITE BALANCE Adjustment [Only for AV-32260 model]
- BRIGHT adjustment
  - SUB BRIGHT adjustment
- CONTRAST adjustment
  - SUB CONTRAST adjustment
- DEFLECTION adjustment
  - V CENTER and TRAPEZIUM adjustment
  - V-SIZE and V-LINEARITY adjustment
  - H SIZE and H POSITION adjustment
  - SIDE PIN and CORNER PIN adjustment
  - PIP DISPLAY POSITION adjustment [Only for AV-32260 model]
- CHROMA adjustment
  - SUB COLOR adjustment
  - SUB TINT adjustment
- MTS circuit adjustment
  - INPUT LEVEL check
  - STEREO VCO adjustment
  - SAP VCO adjustment
  - FILTER check
  - SEPARATION adjustment
- PURITY and CONVERGENCE adjustments
  - PURITY adjustment
  - STATIC CONVERGENCE adjustment
  - DYNALIC CONVERGENCE adjustment

## ADJUSTMENT LOCATIONS



# BASIC OPERATION OF SERVICE MENU

## 1. TOOL OF SERVICE MENU OPERATION

Operate the SERVICE MENU with the REMOTE CONTROL UNIT.

## 2. SERVICE MENU ITEMS

In general, basic setting (adjustments) items or verifications are performed in the SERVICE MENU.

- PICTURE ..... This sets the setting values (adjustment values) of the VIDEO/CHROMA and DEFLECTION circuits.
- SOUND ..... This sets the setting values (adjustment values) of the AUDIO circuit.
- THEATER ..... This is used when the THEATER MODE is adjusted.
- OTHERS ..... This is used when the OTHERS MODE is adjustment.
- PIP ..... This sets the setting values (adjustment values) of the PIP circuit. **[Only for AV-32260 model]**
- LOW LIGHT ..... This sets the setting values (adjustment values) of the WHITE BALANCE circuit.
- HIGH LIGHT ..... This sets the setting values (adjustment values) of the WHITE BALANCE circuit.
- RF AFC ..... This is used when the RF AFC MODE is verified. **[Do not adjust/Only for AV-32230 model]**
- RF AFC1 ..... This is used when the RF AFC1 MODE is verified. **[Do not adjust/Only for AV-32260 model]**
- RF AFC2 ..... This is used when the RF AFC2 MODE is verified. **[Do not adjust/Only for AV-32260 model]**
- VCO (CW) ..... This is not used for service.
- I2C BUS CTRL ..... This is used when ON/OFF of the I2C BUS CTRL is set. **[Fixed ON]**

## 3. Basic Operations of the SERVICE MENU

### (1) How to enter the SERVICE MENU.

Press **SLEEP TIMER** key and, while the indication of “**SLEEP TIMER 0 MIN.**” is being displayed, press **DISPLAY** key and **VIDEO STATUS** key on the remote control unit simultaneously to enter the **SERVICE MENU** screen ① shown in the next figure page.

### (2) SERVICE MENU screen selection

Press the UP / DOWN key of the MENU to select any of the following items.

(The letters of the selected items are displayed in yellow.)

#### [AV-32230]

- PICTURE
- THEATER
- SOUND
- OTHERS
- LOW LIGHT
- RF AFC
- VCO(CW)
- HIGH LIGHT
- I2C BUS CTRL

#### [AV-32260]

- PICTURE
- THEATER
- PIP
- LOW LIGHT
- RF AFC1
- VCO(CW)
- SOUND
- OTHERS
- HIGH LIGHT
- RF AFC2
- I2C BUS CTRL

### (3) Enter the any setting ( adjustment ) mode

#### ● PICTURE, SOUND and OTHERS mode

- 1) If select any of PICTURE, SOUND or OTHERS items, and the LEFT / RIGHT key is pressed from SERVICE MENU ( MAIN MENU ), the screen ② will be displayed as shown in figure page later.
- 2) Then the UP / DOWN key is pressed, the PICTURE mode screen ③ or the SOUND mode screen ④ or the OTHER mode screen ⑤ is displayed, and the PICTURE, SOUND or OTHERS setting can be performed.

#### ● PIP mode [Only for AV-32260 model]

- 1) If select the PIP item, and the LEFT/RIGHT key is pressed from SERVICE MENU (MAIN MENU), the screen ⑥ will be displayed as shown in figure page later.
- 2) Then the UP/DOWN key is pressed, the PIP mode screen ⑦ is displayed, and the PIP setting can be performed.

#### [AV-32230]

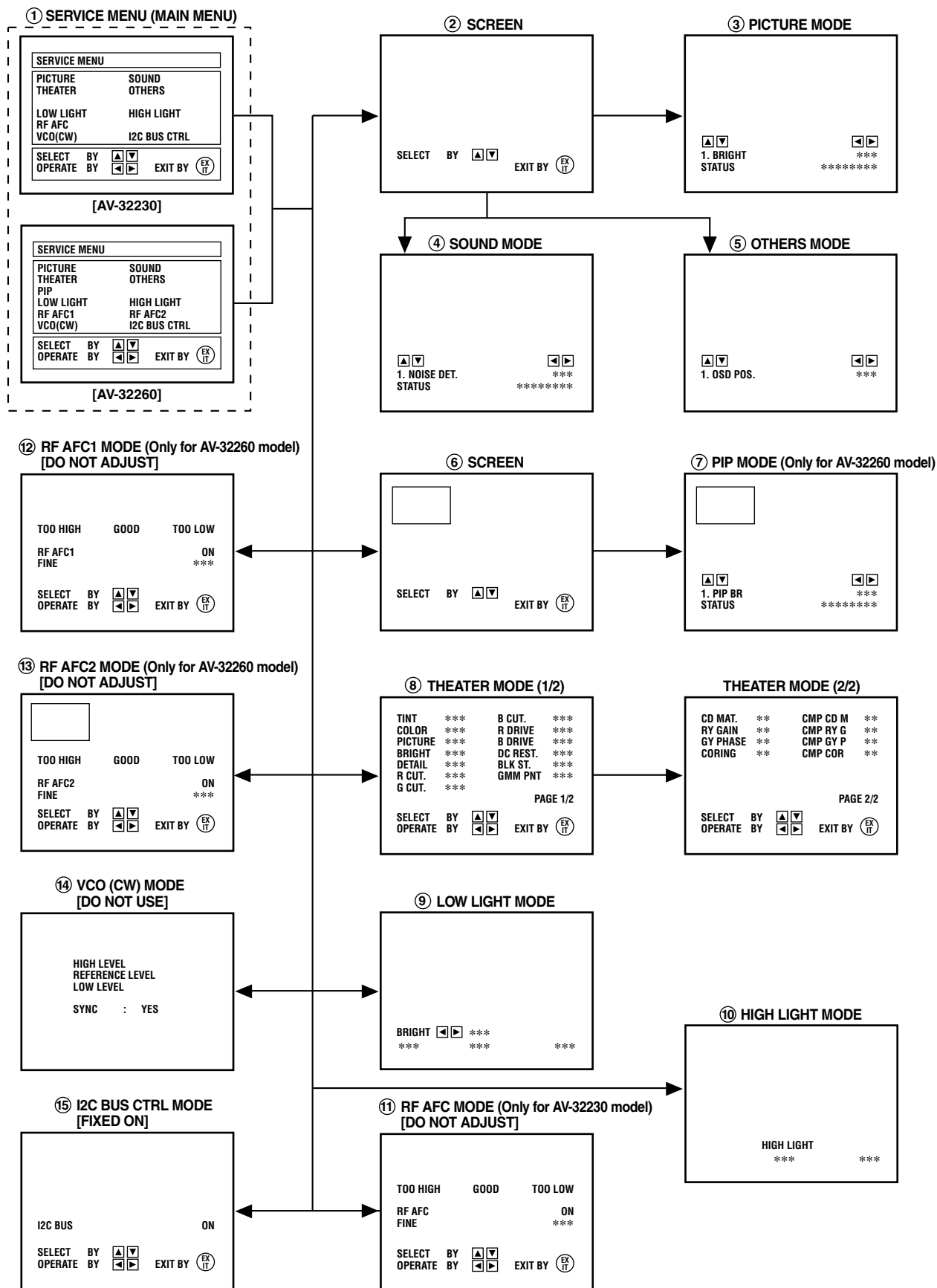
#### ● THEATER, LOW LIGHT, HIGH LIGHT, RF AFC, VCO(CW) and I2C BUS CTRL mode

- 1) If select any of THEATER / LOW LIGHT / HIGH LIGHT / RF AFC / VCO (CW) / I2C BUS CTRL items, and the LEFT / RIGHT key is pressed from SERVICE MENU ( MAIN MENU ), the screens ⑧ ⑨ ⑩ ⑪ ⑭ ⑮ will be displayed as shown in figure page later.
- 2) Then the settings or verifications can be performed.

#### [AV-32260]

#### ● THEATER, LOW LIGHT, HIGH LIGHT, RF AFC1, RF AFC2, VCO(CW) and I2C BUS CTRL mode

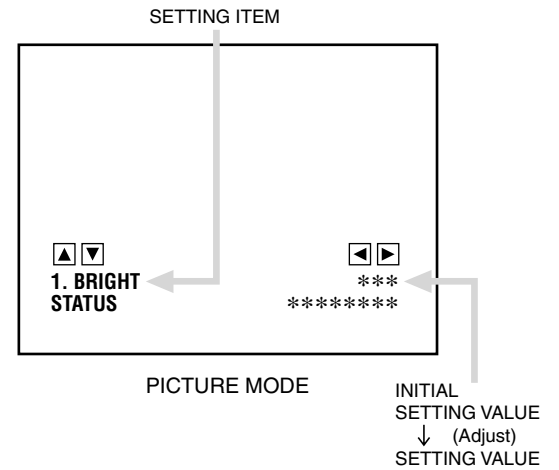
- 1) If select any of THEATER / LOW LIGHT / HIGH LIGHT / RF AFC1 / RF AFC2 / VCO (CW) / I2C BUS CTRL items, and the LEFT / RIGHT key is pressed from SERVICE MENU ( MAIN MENU ), the screens ⑧ ⑨ ⑩ ⑫ ⑬ ⑭ ⑮ will be displayed as shown in figure page later.
- 2) Then the settings or verifications can be performed.





**(4) Setting method**

- 1) UP / DOWN key of the MENU  
Select the SETTING ITEM.
- 2) LEFT / RIGHT key of the MENU  
Setting (adjust) the SETTING VALUE of the SETTING ITEM.  
When the key is released the SETTING VALUE will be stored (memorized).
- 3) EXIT key  
Returns to the previous screen.



**(5) Releasing SERVICE MENU**

- 1) After returning to the SERVICE MENU upon completion of the setting (adjustment) work, press the EXIT key again.

★ The settings for LOW LIGHT and HIGH LIGHT are described in the WHITE BALANCE page of ADJUSTMENT.

## INITIAL SETTING VALUE OF SERVICE MENU

1. Adjustment of the SERVICE MENU is made on the basis of the initial setting values; however, the new setting values which set the screen in its optimum condition may differ from the initial setting.
2. Do not change the initial setting values of the setting (Adjustment) items not listed in “ADJUSTMENT”.

### ● PICTURE MODE

☆ The four setting items in the video mode No.6 EXT BRI., No.7 EXT PIC., No.8 EXT COL. and No.9 EXT TINT are linked to the items in the TV MODE No.1 BRIGHT, No.2 PICTURE, No.3 COLOR and No.4 TINT, respectively. When the setting items in the TV mode are adjusted, the values in the setting items in the video mode are revised automatically to the same values in the TV mode.(The initial setting values given in ( ) are off-set values.)

☆ When the four items (No.6, 7, 8 and 9) are adjusted in the video mode, the setting values in each item are revised independently.

No.	Setting (Adjustment) item	Variable range	Initial setting value	Remark
1	BRIGHT	000 — 127	063	
2	PICTURE	000 — 127	085	
3	COLOR	000 — 127	072	
4	TINT	000 — 127	065	
5	TV DETAIL	000 — 063	045	
6	EXT BRIGHT	±025	+001	
7	EXT PICT.	±025	+002	
8	EXT COLOR	±025	+002	
9	EXT TINT	±025	−003	
10	EXT DETAIL	000 — 063	045	
11	CMP BRIGHT	±025	−003	
12	CMP PICT.	±025	+006	
13	CMP COLOR	000 — 127	089	AV-32230 (/G & /M), AV-32260 (/G & /M)
	CMP COLOR	000 — 127	087	AV-32230 /H, AV-32260 /H
14	CMP TINT	000 — 127	068	AV-32230 /G, AV-32260 /G
	CMP TINT	000 — 127	066	AV-32230 /H, AV-32260 /H
	CMP TINT	000 — 127	062	AV-32230 /M, AV-32260 /M
15	CMP DETAIL	000 — 063	050	
16	CMP R CUT	±025	−011	
17	CMP G CUT	±025	±000	
18	CMP B CUT	±025	−001	
19	CMP R DRV	±025	±000	
20	CMP B DRV	±025	±000	
21	WPL	000 / 001	001	
22	B. B. SW	000 / 001	000	
23	C TRAP	000 / 001	000	
24	CORING	000 / 001	000	
25	CMP CORING	000 / 001	001	
26	TV SHARPF	000 / 001	001	
27	EXT SHARPF	000 / 001	001	
28	CMP SHARPF	000 / 001	001	
29	RGB CONT	000 — 063	031	
30	TV ID SENS	000 / 001	000	
31	EXT ID SEN	000 / 001	001	
32	F ID	000 / 001	000	
33	Y MUTE	000 / 001	000	
34	AUDIO ATT	000 — 127	127	
35	SUB CONT	000 — 015	010	

No.	Setting (Adjustment) item	Variable range	Initial setting value	Remark
36	R Y GAIN	000 / 001	001	
37	CMP R Y GA	000 / 001	001	
38	G Y PHASE	000 / 001	000	
39	CMP G Y PH	000 / 001	000	
40	CD MATRIX	000 — 003	003	
41	CMP CD MAT	000 — 003	002	
42	BLACK ST	000 — 003	001	
43	DC REST	000 — 003	001	
44	COLOR GMM	000 / 001	000	
45	UV/CBCR	000 / 001	001	
46	AT FLESH	000 / 001	000	
47	ABL GAIN	000 — 003	000	
48	ABL ST PNT	000 — 003	003	
49	RGB ABCL	000 / 001	001	
50	TV BPF TOF	000 / 001	000	
51	EXT BPF TOF	000 / 001	000	
52	GMM PNT	000 — 003	003	
53	SVM GAIN	000 — 003	003	
54	CMP SVM GA	000 — 003	003	
55	SVM PHASE	000 / 001	000	
56	AUDIO SW	000 / 001	000	
57	BUZZ	000 / 001	000	
58	IF FREQ	000 / 001	000	
59	RF AGC	000 — 063	045	
60	AFT MUTE	000 / 001	000	
61	AFT SENS	000 / 001	001	
62	R/G DRV SW	000 / 001	001	
63	BLK SW	000 / 001	000	
64	V S COR	000 — 015	012	
65	V LIN	000 — 015	008	
66	V SIZE	000 — 127	065	
67	V AGC	000 / 001	000	
68	V CENTER	000 — 063	053	
69	TV AFC	000 — 003	000	
70	EXT AFC	000 — 003	002	
71	V POSI	000 — 007	000	
72	H POSI	000 — 031	011	
73	H SIZE	000 — 063	023	
74	TV V FREQ	000 — 003	000	
75	EXT V FREQ	000 — 003	003	
76	SIDE PIN	000 — 063	027	
77	STAND BY	000 / 001	000	
78	TRAPEZ	000 — 063	035	
79	V RAMP REF	000 / 001	001	
80	V 48HZ	000 / 001	000	
81	V EHT	000 — 007	000	
82	TOP PIN	000 — 031	010	

No.	Setting (Adjustment) item	Variable range	Initial setting value	Remark
83	H EHT	000 — 007	000	
84	BTM PIN	000 — 031	012	
85	V BLK LOW	000 — 003	000	
86	V BLK UP	000 — 003	000	
87	CAPTION IN	000 / 001	000	
88	H BLK	000 / 001	000	
89	SCREEN	000 / 001	000	
90	ACB SW	000 / 001	000	
91	ACB PULSE	000 — 015	007	
92	OVER MODU	000 / 001	001	
93	APACON LIM	000 / 001	001	
94	TEST	000 — 255	128	
95	RF S/N TY	000 — 002	002	
96	EXT S/N TY	000 — 002	002	
97	RF SN YC E	000 — 255	005	
98	RF SN YC F	000 — 255	016	
99	RF SN YC G	000 — 063	032	
100	RF SN YC H	000 — 255	025	
101	EX SN YC E	000 — 255	005	
102	EX SN YC F	000 — 255	016	
103	EX SN YC G	000 — 063	032	
104	EX SN YC H	000 — 255	025	
105	RF SN VC 1	000 — 063	000	
106	RF SN VC 2	000 — 063	007	
107	RF SN VC 3	000 — 063	014	
108	RF SN VC 4	000 — 063	021	
109	EX SN VC 1	000 — 063	000	
110	EX SN VC 2	000 — 063	007	
111	EX SN VC 3	000 — 063	014	
112	EX SN VC 4	000 — 063	021	
113	COR LEVEL	000 — 003	003	
114	VNR CHK	000 — 255	003	
115	YC SN TIME	000 — 255	005	
116	VC SN TIME	000 — 255	005	
117	VM DATA A	±127	+008	
118	VM DATA B	±127	−004	
119	VM DATA C	±127	−016	
120	VM DATA D	000 / 001	000	
121	VC SN STOP	000 — 255	010	
122	CH MUTE	00/001	000	
123	VM OFF TY	000/001	000	
124	VC VM OFF	000/001	001	
125	YC VM OFF	000 — 255	255	
126	F LOCK	000 — 002	002	
127	VF LOCK EX	000/001	000	
128	PURI RGB	000 — 063	031	
129	PURI BCK	000/001	000	

## ● SOUND MODE

No.	Setting (Adjustment) item	Variable range	Initial setting value	Remark
1	NOISE DET.	000 / 001	001	
2	IN LEVEL	000 — 063	025	
3	FH MONITOR	000 / 001	000	
4	STEREO VCO	000 — 063	030	
5	PILOT CAN.	000 / 001	000	
6	FILTER	000 — 063	030	
7	LOW SEP.	000 — 063	028	
8	HI SEP.	000 — 063	025	
9	5FH MON.	000 / 001	000	
10	SAP VCO	000 — 063	003	
11	IN GAIN	000 / 001	000	
12	FIL. OFFSET	±010	±000	
13	BBE BASS	±010	+001	
14	BBE TRE	±010	+002	

## ● THEATER MODE

Setting (Adjustment) item	Variable range	Initial setting value	Remark
TINT	±20	−06	
COLOR	±20	−03	
PICTURE	±50	−15	
BRIGHT	±20	±00	
DETAIL	±20	+03	
R CUT.	±20	±00	
G CUT.	±20	±00	
B CUT.	±20	±00	
R DRIVE	±99	+07	
B DRIVE	±99	−25	
DC REST.	00 — 03	01	
BLK ST.	00 — 03	00	
GMM PNT	00 — 03	01	
CD MATRIX	00 — 03	01	
RY GAIN	00 / 01	01	
GY PHASE	00 / 01	00	
CORING	00 / 01	01	
CMP CD M	00 — 03	01	
CMP RY G	00 / 01	01	
CMP GY P	00 / 01	00	
CMP COR	00 / 01	01	

● OTHERS MODE

No.	Setting (Adjustment) item	Variable range	Initial setting value	Remark
1	OSD POS.	000 — 007	002	
2	CCD POS.	000 — 015	003	
3	EOSEL	000 / 001	000	
4	MENU COLOR	000 — -030	-010	
5	MENU PICT.	000 — -030	-010	
6	MENU BRI.	000 — -030	-010	

● PIP MODE [Only for AV-32260 model]

No.	Setting (Adjustment) item	Variable range	Initial setting value	Remark
1	PIP BR	000 — 015	005	
2	PIP PICT	030 — 045	045	
3	PIP TINT	000 — 063	036	
4	PIP COL	000 — 015	010	
5	P R CUT	000 — 015	003	
6	P G CUT	000 — 015	000	
7	P B CUT	000 — 015	002	
8	P R DR	000 — 255	052	
9	P G DR	000 — 255	055	
10	P B DR	000 — 255	060	
11	LEFT POS.	000 — 255	020	
12	RIGHT POS.	000 — 255	017	
13	UPPER POS.	000 — 127	012	
14	LOWER POS.	000 — 127	011	
15	PICT LOCK	000 / 001	001	
16	SELDEL	000 — 015	000	
17	AGCFIX	000 / 001	001	
18	AGCADST	000 / 001	000	
19	AGC	000 — 015	007	
20	VSPDEL	000 — 031	000	
21	VSPISQ	000 / 001	001	
22	YCOR	000 / 001	001	
23	XFREQF	000 / 001	001	
24	WTCHDG	000 / 001	001	
25	COLON	000 / 001	000	
26	ACQNEW	000 / 001	000	
27	DSTDET	000 / 001	001	
28	CRIBEOK	000 / 001	000	
29	FCBEOK	000 / 001	000	
30	NOCRID	000 / 001	000	
31	NONSED	000 / 001	000	

### ● LOW LIGHT MODE

Setting (Adjustment) item	Variable range	Initial setting value	Remark
R CUTOFF	0 — 255	085	
G CUTOFF	0 — 255	085	
B CUTOFF	0 — 255	085	

### ● HIGH LIGHT MODE

Setting (Adjustment) item	Variable range	Initial setting value	Remark
R DRIVE	0 — 127	060	
B DRIVE	0 — 127	060	

### ● RF AFC MODE [Only for AV-32230 model]

Setting (Adjustment) item	Variable range	Initial setting value	Remark
RF AFC	ON / OFF	ON	( DO NOT ADJUST )
FINE	-77 — +77	± × ×	

### ● RF AFC1 MODE [Only for AV-32260 model]

Setting (Adjustment) item	Variable range	Initial setting value	Remark
RF AFC1	ON / OFF	ON	( DO NOT ADJUST )
FINE	-77 — +77	± × ×	

### ● RF AFC2 MODE [Only for AV-32260 model]

Setting (Adjustment) item	Variable range	Initial setting value	Remark
RF AFC2	ON / OFF	ON	( DO NOT ADJUST )
FINE	-77 — +77	± × ×	

### ● I2C BUS CTRL MODE

Setting (Adjustment) item	Variable range	Initial setting value	Remark
I2C BUS	ON/OFF	[FIXED ON] ( DO NOT ADJUST )	

## ADJUSTMENTS

### B1 POWER SUPPLY

Item	Measuring instrument	Test point	Adjustment part	Description
Check of B1 POWER SUPPLY	DC Voltmeter	R507 C504 side (B1)  Q511 heatsink (77)		<ol style="list-style-type: none"> <li>1. Receive a black-and-white signal.</li> <li>2. Connect the DC Voltmeter to R507 C504 side (B1) and Q511 heatsink (77).</li> <li>3. Confirm that the voltage is <math>DC134V^{+2V}_{-2V}</math>.</li> </ol>

### ADJUSTMENT OF RF AGC

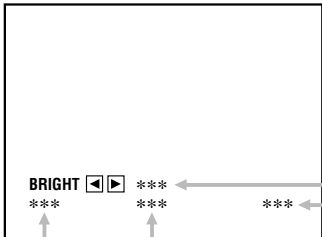
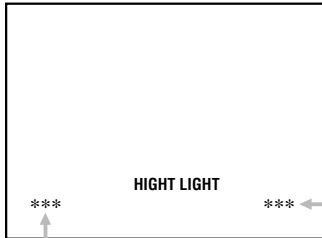
Item	Measuring instrument	Test point	Adjustment part	Description
RF AGC adjustment			No.59 RF AGC	<ol style="list-style-type: none"> <li>1. Receive a broadcast.</li> <li>2. Select the No.59 RF AGC of the PICTURE MODE.</li> <li>3. Press the MUTE key of the remote control unit and turn off color.</li> <li>4. With the LEFT key of the remote control unit, get noise in the screen picture. (0 side of setting value)</li> <li>5. Press the RIGHT key of the remote control unit and stop when noise disappears from the screen.</li> <li>6. Change to other channels and make sure that there is no irregularity.</li> <li>7. Press the MUTE key and get color out.</li> </ol>

### ADJUSTMENT OF FOCUS

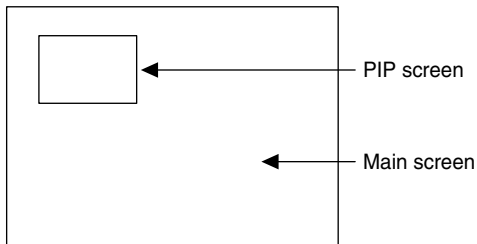
Item	Measuring instrument	Test point	Adjustment part	Description
FOCUS adjustment	Signal generator		<b>FOCUS VR</b> [In HVT]  <b>H VR</b> [In HVT]	<p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• Proceed to the following this adjustment after having completed the adjustments of B1 POWER SUPPLY, SUB BRIGHT and PICTURE.</li> <li>• Set VIDEO STATUS to "STANDARD".</li> <li>• The final adjustment of CONVERGENCE must be done after the FOCUS adjustment. (CONVERGENCE is changed by FOCUS adjustment.)</li> </ul> <p>When makes difference by FOCUS adjustment, should be reconfirming PURITY adjustment.</p> <ol style="list-style-type: none"> <li>1. Receive a crosshatch signal.</li> <li>2. While looking at the screen center, adjust the FOCUS VR so that the horizontal lines will be clear and in fine detail.</li> <li>3. Adjust the H VR so that the vertical lines will be clear and in fine detail.</li> <li>4. Make sure that the picture is in focus even when the screen gets darkened.</li> </ol>



## ADJUSTMENT OF WHITE BALANCE

Item	Measuring instrument	Test point	Adjustment part	Description									
WHITE BALANCE (Low Light) Adjustment	Signal generator		No.1 BRIGHT  R CUTOFF G CUTOFF B CUTOFF  SCREEN VR [In HVT]	<p><b>Note :</b> Set VIDEO STATUS to “STANDARD”.</p> <ol style="list-style-type: none"><li>1. Receive a black-and-white signal.(Color off)</li><li>2. Select the [LOW LIGHT] MODE from the SERVICE MENU.</li><li>3. Set the initial setting value of BRIGHT is 063 with the LEFT / RIGHT key of the remote control unit.</li><li>4. Set the initial setting value of R CUTOFF, G CUTOFF and B CUTOFF is 085 with the ④ to ⑨ key of the remote control unit.</li><li>5. Display a single horizontal line by pressing the ① key of the remote control unit.</li><li>6. Turn the screen VR all the way to the left.</li><li>7. Turn the screen VR gradually to the right from the left until either one of the red, blue or green colors appears faintly.</li><li>8. Adjust the two colors which did not appear until the single horizontal line that is displayed becomes white using the ④ to ⑨ keys of the remote control unit.</li><li>9. Turn the screen VR to where the single horizontal line glows faintly.</li><li>10. Press the ② key to return to the regular screen.</li></ol> <p>* The ③ EXIT key is the cancel key for the WHITE BALANCE.</p>									
<div><div><p>[LOW LIGHT] MODE</p></div><div><p>REMOTE CONTROL UNIT</p><table><tr><td>H.LINE ON ①</td><td>H.LINE OFF ②</td><td>EXIT ③</td></tr><tr><td>R CUTOFF ▲ ④</td><td>G CUTOFF ▲ ⑤</td><td>B CUTOFF ▲ ⑥</td></tr><tr><td>R CUTOFF ▼ ⑦</td><td>G CUTOFF ▼ ⑧</td><td>B CUTOFF ▼ ⑨</td></tr></table></div></div>					H.LINE ON ①	H.LINE OFF ②	EXIT ③	R CUTOFF ▲ ④	G CUTOFF ▲ ⑤	B CUTOFF ▲ ⑥	R CUTOFF ▼ ⑦	G CUTOFF ▼ ⑧	B CUTOFF ▼ ⑨
H.LINE ON ①	H.LINE OFF ②	EXIT ③											
R CUTOFF ▲ ④	G CUTOFF ▲ ⑤	B CUTOFF ▲ ⑥											
R CUTOFF ▼ ⑦	G CUTOFF ▼ ⑧	B CUTOFF ▼ ⑨											
WHITE BALANCE (High Light) Adjustment	Signal generator		R DRIVE B DRIVE	<p><b>Notes:</b></p> <ul style="list-style-type: none"><li>• Proceed to the following this adjustment after having completed the adjustment of LOW LIGHT WHITE BALANCE.</li><li>• Set VIDEO STATUS to “STANDARD”.</li></ul> <ol style="list-style-type: none"><li>1. Receive a black-and-white signal. (Color off)</li><li>2. Select the [HIGH LIGHT] MODE from the SERVICE MENU.</li><li>3. Set the initial setting value of R DRIVE and B DRIVE is 060 with the ④, ⑥, ⑦ and ⑨ keys of the remote control unit.</li><li>4. Adjust the screen until it becomes white using the ④, ⑥, ⑦ and ⑨ keys of the remote control unit.</li></ol> <p>* The ③ (EXIT) key is the cancel key for the WHITE BALANCE.</p>									
<div><div><p>[HIGH LIGHT] MODE</p></div><div><p>REMOTE CONTROL UNIT</p><table><tr><td>H.LINE ON ①</td><td>H.LINE OFF ②</td><td>EXIT ③</td></tr><tr><td>R DRIVE ▲ ④</td><td></td><td>B DRIVE ▲ ⑥</td></tr><tr><td>R DRIVE ▼ ⑦</td><td></td><td>B DRIVE ▼ ⑨</td></tr></table></div></div>					H.LINE ON ①	H.LINE OFF ②	EXIT ③	R DRIVE ▲ ④		B DRIVE ▲ ⑥	R DRIVE ▼ ⑦		B DRIVE ▼ ⑨
H.LINE ON ①	H.LINE OFF ②	EXIT ③											
R DRIVE ▲ ④		B DRIVE ▲ ⑥											
R DRIVE ▼ ⑦		B DRIVE ▼ ⑨											

Item	Measuring instrument	Test point	Adjustment part	Description
<b>PIP HIGH LIGHT WHITE BALANCE [AV-32260]</b>	Signal generator		<b>No.8 P R DR No.10 P B DR</b>	<b>Notes:</b> <ul style="list-style-type: none"> <li>• Proceed to the following this adjustment after having completed the adjustments of LOW LIGHT WHITE BALANCE and HIGH LIGHT WHITE BALANCE for the main picture.</li> <li>• Set VIDEO STATUS to “STANDARD”.</li> </ul> <ol style="list-style-type: none"> <li>1. Receive a black-and-white signal. (Color off)</li> <li>2. Select the PIP MODE from the SERVICE MENU.</li> <li>3. Then adjust the white color of the PIP screen using the No. 8 P R DR and the No. 10 P B DR of the PIP MODE so that it is the same brightness as the main screen.</li> </ol>



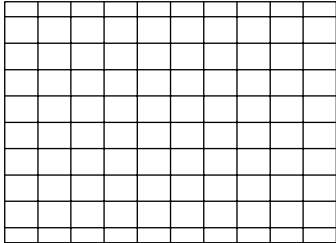
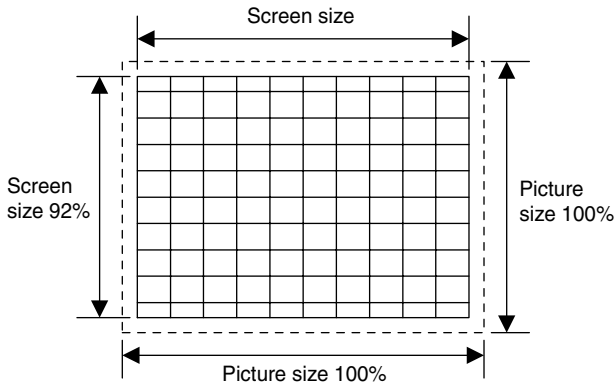
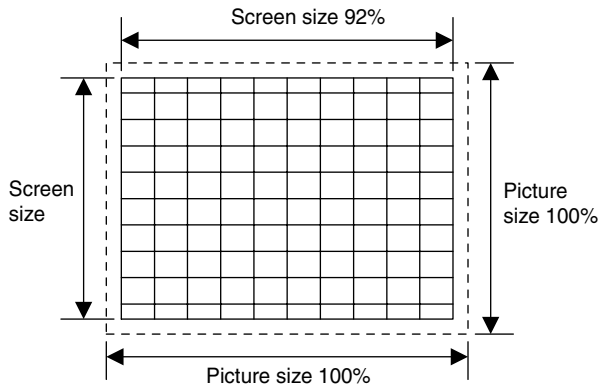
### ADJUSTMENT OF BRIGHT

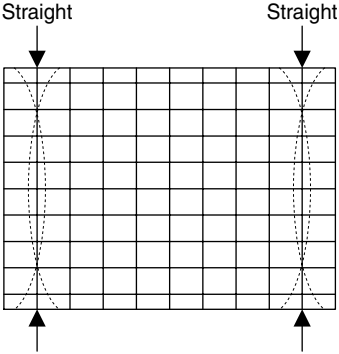
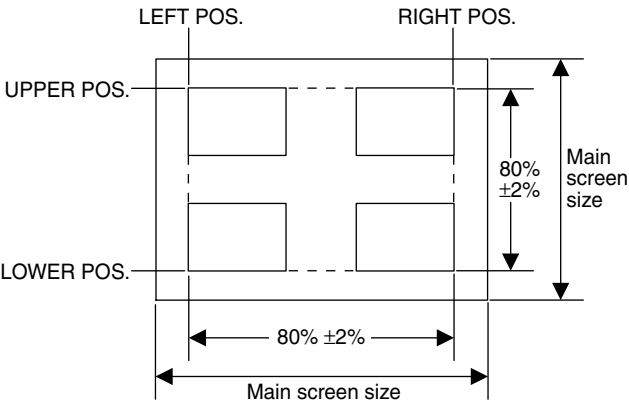
Item	Measuring instrument	Test point	Adjustment part	Description
<b>SUB BRIGHT Adjustment</b>			<b>No.1 BRIGHT</b>	<b>Notes:</b> <ul style="list-style-type: none"> <li>• Proceed to the following this adjustment after having completed the adjustments of LOW LIGHT WHITE BALANCE and HIGH LIGHT WHITE BALANCE.</li> <li>• Set VIDEO STATUS to “STANDARD”.</li> </ul> <ol style="list-style-type: none"> <li>1. Receive a broadcast.</li> <li>2. Select the No.1 BRIGHT of the PICTURE MODE.</li> <li>3. Set the initial setting value of the No.1 BRIGHT with the LEFT / RIGHT key of the remote control unit.</li> <li>4. If the brightness is not best with the initial setting value, make fine adjustment of the No.1 BRIGHT until you get the optimum brightness.</li> </ol>

### ADJUSTMENT OF CONTRAST

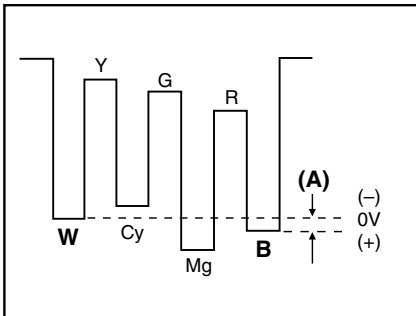
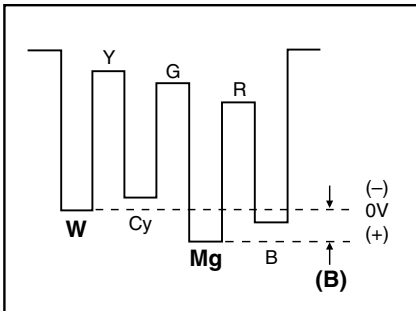
Item	Measuring instrument	Test point	Adjustment part	Description
<b>SUB CONTRAST Adjustment</b>			<b>No.2 PICTURE</b>	<b>Notes:</b> <ul style="list-style-type: none"> <li>• Proceed to the following this adjustment after having completed the adjustment of SUB BRIGHT.</li> <li>• Set VIDEO STATUS to “STANDARD”.</li> </ul> <ol style="list-style-type: none"> <li>1. Receive a broadcast.</li> <li>2. Select the No.2 PICTURE of the PICTURE MODE.</li> <li>3. Set the initial setting value of the No.2 PICTURE with the LEFT / RIGHT key of the remote control unit.</li> <li>4. If the contrast is not best with the initial setting value, make fine adjustment of the No.2 PICTURE until you get the optimum contrast.</li> </ol>

**ADJUSTMENT OF DEFLECTION**

Item	Measuring instrument	Test point	Adjustment part	Description
<b>V CENTER and TRAPEZIUM Adjustment</b>	Signal generator		<b>No.68 V CENTER</b> <b>No.78 TRAPEZ</b>	<p><b>Note:</b> Proceed to the following this adjustment after having completed the adjustments of SUB BRIGHT and SUB CONTRAST.</p> <ol style="list-style-type: none"> <li>1. Receive a crosshatch signal.</li> <li>2. Adjust the No.68 V CENTER of the PICTURE MODE to be the same between the CRT vertical center and crosshatch vertical center.</li> <li>3. Adjust the No.78 TRAPEZ of the PICTUER MODE to be the vertical lines straight.</li> <li>4. Confirm the vertical lines to be straight. If it is not straight, adjust to be straight at the No.78 TRAPEZ.</li> </ol>
				
<b>V-SIZE and V-LINEARITY Adjustment</b>	Signal generator		<b>No.66 V SIZE</b> <b>No.65 V LIN</b>	<p><b>Note:</b> Proceed to the following this adjustment after having completed the adjustments of SUB BRIGHT and SUB CONTRAST.</p> <ol style="list-style-type: none"> <li>1. Receive a crosshatch signal.</li> <li>2. Select the No.66 V SIZE of the PICTURE MODE to squeeze the laster.</li> <li>3. Adjust the No.65 V LIN of the PICTURE MODE to be symmetrical.</li> <li>4. Adjust the No.66 V SIZE until the vertical screen size is 92%.</li> </ol>
				
<b>H SIZE and H POSITION Adjustment</b>	Signal generator		<b>No.73 H SIZE</b> <b>No.72 H POSI</b>	<p><b>Note:</b> Proceed to the following this adjustment after having completed the adjustments of FOCUS, SUB BRIGHT, SUB CONTRAST, V CENTER, TRAPEZIUM, V-SIZE and V-LINEARITY.</p> <ol style="list-style-type: none"> <li>1. Receive a crosshatch signal.</li> <li>2. Select the No.73 H SIZE of the PICTURE MODE.</li> <li>3. Set the initial setting value of the No.73 H SIZE with the LEFT / RIGHT key of the remote control unit.</li> <li>4. Adjust the No.73 H SIZE until the horizontal screen size is 92%.</li> <li>5. Adjust the No.72 H POSI until the screen will be horizontally centered.</li> </ol>
				

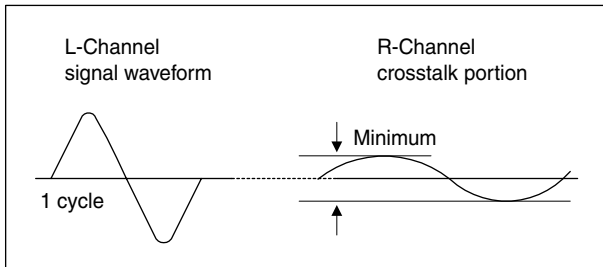
Item	Measuring instrument	Test point	Adjustment part	Description
<b>SIDE PIN and CORNER PIN Adjustment</b>	Signal generator		<b>No.76 SIDE PIN</b> <b>No.82 TOP PIN</b> <b>No.84 BTM PIN</b>	<p><b>Note:</b> Proceed to the following this adjustment after having completed the adjustments of FOCUS, SUB BRIGHT, SUB CONTRAST, V CENTER, TRAPEZIUM, V-SIZE and V-LINEARITY.</p> <ol style="list-style-type: none"> <li>1. Receive a crosshatch signal.</li> <li>2. Adjust such that vertical 2nd lines from left and right to be straight at the No.76 SIDE PIN of the PICTURE MODE.</li> <li>3. Adjust the end of vertical 2nd lines from left and right to be straight at the No.82 TOP PIN and the No.84 BTM PIN of the PICTURE MODE.</li> </ol>
				
<b>PIP DISPLAY POSITION Adjustment [AV-32260]</b>			<b>No.11 LEFT POS.</b> <b>No.12 RIGHT POS.</b> <b>No.13 UPPER POS.</b> <b>No.14 LOWER POS.</b>	<p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• Proceed to the following this adjustment after having completed the adjustments of V CENTER, TRAPEZIUM, V-SIZE, V-LINEARITY, H SIZE, H POSITION, SIDE PIN and CORNER PIN for the main picture.</li> <li>• Set VIDEO STATUS to "STANDARD".</li> </ul> <ol style="list-style-type: none"> <li>1. Receive a broadcast.</li> <li>2. Select the PIP MODE from the SERVICE MENU.</li> <li>3. Then adjust the PIP screen size so that it occupies <math>80\% \pm 2\%</math> of the main screen area.</li> </ol>
				

## ADJUSTMENT OF CHROMA

Item	Measuring instrument	Test point	Adjustment part	Description				
SUB COLOR adjustment	Signal generator Oscilloscope Remote control unit	TP-B TP-E ( $\frac{1}{11}$ ) [CRT SOCKET PWB]	No.3 COLOR	<b>Notes:</b> <ul style="list-style-type: none"><li>• Proceed to the following this adjustment after having completed the adjustment of CONTRAST.</li><li>• Set VIDEO STATUS to “STANDARD”.</li></ul> <b>[ Method of adjustment without measuring instrument ]</b> <ol style="list-style-type: none"><li>1. Receive a broadcast.</li><li>2. Select the No.3 COLOR of the PICTURE MODE.</li><li>3. Set the initial setting value of the No.3 COLOR with the LEFT/RIGHT key of the remote control unit.</li><li>4. If the color is not the best with the Initial setting value, make fine adjustment of the No.3 COLOR until you get the optimum color.</li></ol>				
				 <table><tr><td></td><td>A (V<sub>W-B</sub>)</td></tr><tr><td>AV-32260/G, AV-32230/G</td><td>+8V</td></tr><tr><td>AV-32260/H, AV-32230/H</td><td>+6V</td></tr><tr><td>AV-32260/M, AV-32230/M</td><td>+7V</td></tr></table> <p style="text-align: center;"><b>Table 1</b></p>		A (V <sub>W-B</sub> )	AV-32260/G, AV-32230/G	+8V
	A (V <sub>W-B</sub> )							
AV-32260/G, AV-32230/G	+8V							
AV-32260/H, AV-32230/H	+6V							
AV-32260/M, AV-32230/M	+7V							
SUB TINT adjustment	Signal generator Oscilloscope Remote control unit	TP-B TP-E ( $\frac{1}{11}$ ) [CRT SOCKET PWB]	No.4 TINT	<b>Notes:</b> <ul style="list-style-type: none"><li>• Proceed to the following this adjustment after having completed the adjustment of CONTRAST.</li><li>• Set VIDEO STATUS to “STANDARD”.</li></ul> <b>[ Method of adjustment without measuring instrument ]</b> <ol style="list-style-type: none"><li>1. Receive a broadcast.</li><li>2. Select the No.4 TINT of the PICTURE MODE.</li><li>3. Set the initial setting value of the No.4 TINT with the LEFT/RIGHT key of the remote control unit.</li><li>4. If the tint is not the best with the initial setting value, make fine adjustment of the No.4 TINT until you get the optimum tint.</li></ol>				
				 <table><tr><td></td><td>B (V<sub>W-Mg</sub>)</td></tr><tr><td>AV-32260/G, AV-32230/G</td><td>+8V</td></tr><tr><td>AV-32260/H, AV-32230/H</td><td>+8V</td></tr><tr><td>AV-32260/M, AV-32230/M</td><td>+11V</td></tr></table> <p style="text-align: center;"><b>Table 2</b></p>		B (V <sub>W-Mg</sub> )	AV-32260/G, AV-32230/G	+8V
	B (V <sub>W-Mg</sub> )							
AV-32260/G, AV-32230/G	+8V							
AV-32260/H, AV-32230/H	+8V							
AV-32260/M, AV-32230/M	+11V							

## ADJUSTMENT OF MTS CIRCUIT

Item	Measuring instrument	Test point	Adjustment part	Description
<b>MTS INPUT LEVEL check</b>			<b>No.2 IN LEVEL</b>	<ol style="list-style-type: none"> <li>1. Select the No.2 IN LEVEL of the SOUND MODE.</li> <li>2. Verify that the No.2 IN LEVEL is set at its initial setting value.</li> </ol>
<b>MTS STEREO VCO adjustment</b>	<b>Signal generator</b>  <b>Frequency counter</b>	<b>[MPX] Connector</b> <b>2 pin AUDIO R</b> <b>3 pin GND</b>	<b>No.3 FH MONITOR</b>  <b>No.4 STEREO VCO</b>	<p><b>Note:</b> Menu “MTS” is set to “STEREO”</p> <ol style="list-style-type: none"> <li>1. Receive a RF signal (nonmodulated sound signal) from the antenna terminal.</li> <li>2. Select the No.3 FH MONITOR of SOUND MODE, and change the setting value from 0 to 1.</li> <li>3. Connect the Frequency Counter to pin 2 of [MPX] connector and GND (Pin 3 of [MPX] connector).</li> <li>4. Select the No.4 STEREO VCO.</li> <li>5. Set the initial setting value of the No.4 STEREO VCO with the LEFT/RIGHT key of the remote control unit.</li> <li>6. Adjust the No.4 STEREO VCO so that the frequency counter will display <math>15.73\text{kHz} \pm 0.1\text{kHz}</math>.</li> <li>7. Select the No.3 FH MONITOR of the SOUND MODE, and reset the setting value from 1 to 0.</li> </ol>
<b>MTS SAP VCO adjustment</b>	<b>Signal generator</b>  <b>Frequency counter</b>	<b>[MPX] Connector</b> <b>4 pin TP_952.5</b> <b>3 pin GND</b> <b>2 pin AUDIO_R</b>	<b>No.9 5FH MON.</b>  <b>No.10 SAP VCO</b>	<ol style="list-style-type: none"> <li>1. Receive a RF signal (non modulated sound signal) from the antenna terminal.</li> <li>2. Connect between pin 4 of [MPX] connector and GND (Pin 3 of [MPX] connector) through <math>1\text{M}\Omega</math> Resistor.</li> <li>3. Select the No.9 5FH MON. of the SOUND MODE, and reset the setting value from 0 to 1.</li> <li>4. Connect the Frequency Counter to pin 2 of [MPX] connector and GND (Pin 3 of [MPX] connector) .</li> <li>5. Select the No.10 SAP VCO.</li> <li>6. Set the initial setting value of the No.10 SAP VCO with the LEFT/RIGHT key of the remote control unit.</li> <li>7. Adjust the No.10 SAP VCO so that the frequency counter will display <math>78.67\text{kHz} \pm 0.5\text{kHz}</math>.</li> <li>8. Select the No.9 5FH MON. of the SOUND MODE, and reset the setting value from 1 to 0.</li> </ol>
<b>MTS FILTER check</b>			<b>No.6 FILTER</b>	<ol style="list-style-type: none"> <li>1. Select the No.6 FILTER of the SOUND MODE.</li> <li>2. Verify that the No.6 FILTER is set at its initial setting value.</li> </ol>
<b>MTS SEPARATION adjustment</b>	<b>TV audio multiplex signal generator</b>  <b>Oscilloscope</b>	<b>[MPX] Connector</b> <b>1 pin AUDIO_L</b> <b>2 pin AUDIO_R</b> <b>3 pin GND</b>	<b>No.7 LOW SEP.</b>  <b>No.8 HI SEP.</b>	<p><b>Note:</b> Menu “MTS” is set to “STEREO”</p> <ol style="list-style-type: none"> <li>1. Input a stereo L signal (300Hz) from the TV audio multiplex signal generator to the antenna terminal.</li> <li>2. Connect an oscilloscope to pin 1 of [MPX] connector, and display one cycle portion of the 300Hz signal.</li> <li>3. Change the connection of the oscilloscope to pin 2 of [MPX] connector, and enlarge the voltage axis.</li> <li>4. Select the No.7 LOW SEP. of the SOUND MODE.</li> <li>5. Set the initial setting value of the No.7 LOW SEP. with the LEFT/RIGHT key of the remote control unit.</li> <li>6. Adjust the No.7 LOW SEP. so that the 300Hz signal level will become minimum.</li> <li>7. Change the signal to 3kHz, and connect an oscilloscope to pin 1 of [MPX] connector.</li> <li>8. Adjust the No.8 HI SEP. so that the 3kHz signal level will become minimum.</li> </ol>

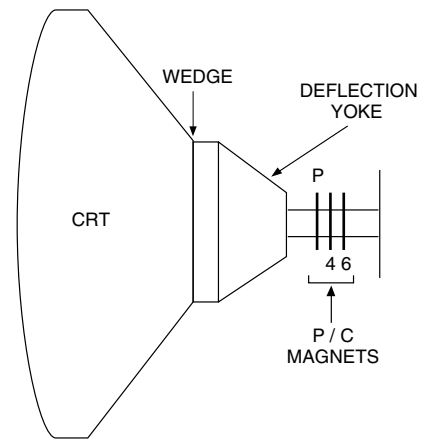


## ADJUSTMENTS OF PURITY AND CONVERGENCE

**Note:** The final adjustment of CONVERGENCE must be done after the FOCUS adjustment. (CONVERGENCE is changed by FOCUS adjustment.)  
When makes difference by FOCUS adjustment, should be reconfirming PURITY adjustment.

### PURITY ADJUSTMENT

1. Demagnetize CRT with the demagnetizer.
2. Loosen the retainer screw of the deflection yoke.
3. Remove the wedges.
4. Input a green raster signal from the signal generator, and turn the screen to green raster.
5. Move the deflection yoke backward.
6. Bring the long lug of the purity magnets on the short lug and position them horizontally. (Fig.2)
7. Adjust the gap between two lugs so that the GREEN RASTER will come into the center of the screen. (Fig.3)
8. Move the deflection yoke forward, and fix the position of the deflection yoke so that the whole screen will become green.
9. Insert the wedge to the top side of the deflection yoke so that it will not move.
10. Input a crosshatch signal.
11. Verify that the screen is horizontal.
12. Input red and blue raster signals, and make sure that purity is properly adjusted.



#### • P/C MAGNETS

P : PURITY MAGNET  
4 : 4 POLES (convergence magnets)  
6 : 6 POLES (convergence magnets)

Fig. 1

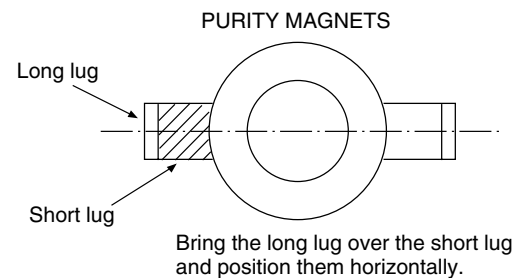


Fig. 2

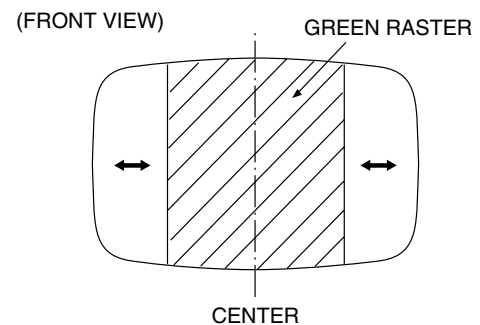


Fig. 3

## STATIC CONVERGENCE ADJUSTMENT

1. Input a crosshatch signal.
2. Using 4-pole convergence magnets, overlap the red and blue lines in the center of the screen (Fig. 4) and turn them to magenta (red/blue).
3. Using 6-pole convergence magnets, overlap the magenta (red/blue) and green lines in the center of the screen and turn them to white.
4. Repeat 2 and 3 above, and make best convergence.

## DYNAMIC CONVERGENCE ADJUSTMENT

1. Move the deflection yoke up and down and overlap the lines in the periphery. (Fig. 5)
2. Move the deflection yoke left to right and overlap the lines in the periphery. (Fig. 6)
3. Repeat 1 and 2 above, and make best convergence.

- After adjustment, fix the wedge at the original position.  
Fasten the retainer screw of the deflection yoke.  
Fix the 6 magnets with glue.

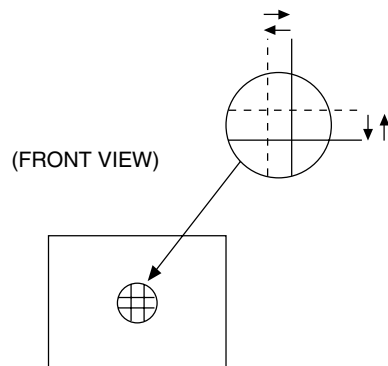


Fig. 4

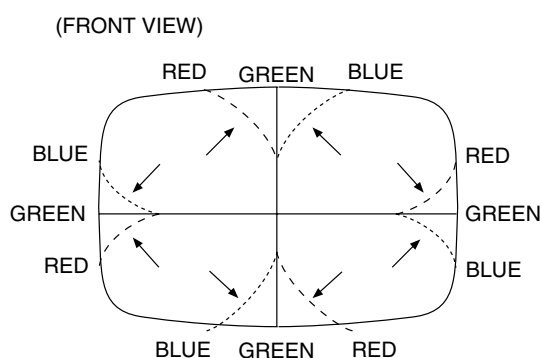


Fig. 5

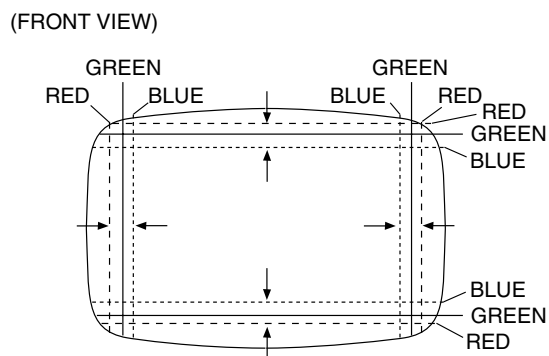


Fig. 6



# HOW TO CHECK THE HIGH VOLTAGE HOLD DOWN CIRCUIT

## 1. HIGH VOLTAGE HOLD DOWN CIRCUIT

After repairing the high voltage hold down circuit shown in Fig. 1.  
This circuit shall be checked to operate correctly.

## 2. CHECKING OF THE HIGH VOLTAGE HOLD DOWN CIRCUIT

- (1) Turn the POWER SW ON.
- (2) As shown in Fig. 1, set the resistor (between [S1] connector [2] & [3] ).
- (3) Make sure that the screen picture disappears.
- (4) Temporarily unplug the power cord.
- (5) Remove the resistor (between [S1] connector [2] & [3] ).
- (6) Again plug the power cord, make sure that the normal picture is displayed on the screen.

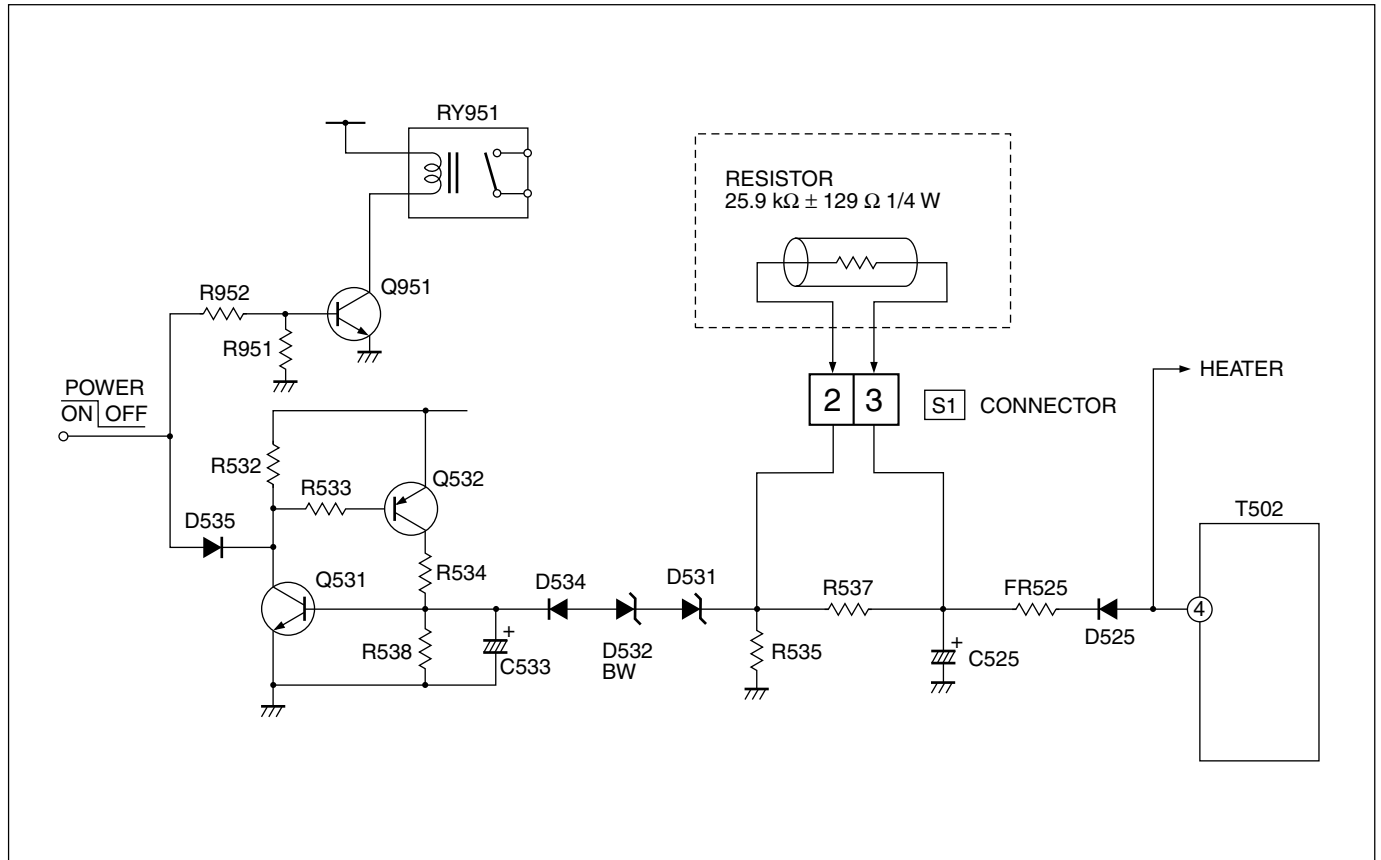


Fig. 1

# SELF CHECK FUNCTIONS

## 1. Outline

This model has self check functions given below. When a malfunction has been detected, the POWER is turned off and the LED flashes to inform of the failure . The malfunction is detected by the signal input state of the control line connected to the microcomputer.

## 2. Self check items

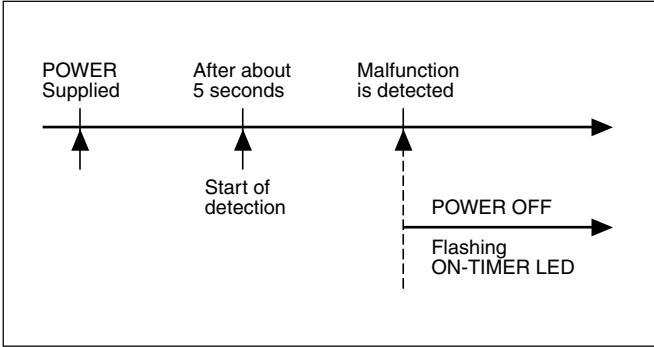
Check item	Details of detection	Method of detection	State of malfunction
Over-current protector	Operation of B1 protector circuit.	The microcomputer detects at 1 second intervals. If NG is detected for more than 200 ms, a malfunction is interpreted.	When a malfunction has been detected, the POWER is turned off. While the POWER is being turned off , the power key of the remote controller is not operational until the power code is taken out and put in again.

## 3. Self check indicating function

The self-check function begins detection about 5 seconds after power is supplied.  
In the event a malfunction is detected, the power is cut off immediately.  
At this time, the ON-TIMER LED flashes to inform of the malfunction.

### [ON-TIMER LED indication]

The ON-TIMER LED flashes at 0.5 seconds intervals.



# PARTS LIST

## CAUTION

- The parts identified by the  $\triangle$  symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety .
- The parts not indicated in this Parts List and those which are filled with lines --- in the Parts No. columns will not be supplied .
- P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied .

## ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
C R	Carbon Resistor	C CAP.	Ceramic Capacitor
F R	Fusible Resistor	E CAP.	Electrolytic Capacitor
P R	Plate Resistor	M CAP.	Mylar Capacitor
V R	Variable Resistor	HV CAP.	High Voltage Capacitor
HV R	High Voltage Resistor	MF CAP.	Metalized Film Capacitor
MF R	Metal Film Resistor	MM CAP.	Metalized Mylar Capacitor
MG R	Metal Glazed Resistor	MP CAP.	Metalized Polystyrol Capacitor
MP R	Metal Plate Resistor	PP CAP.	Polypropylene Capacitor
OM R	Metal Oxide Film Resistor	PS CAP.	Polystyrol Capacitor
CMF R	Coating Metal Film Resistor	TF CAP.	Thin Film Capacitor
UNF R	Non-Flammable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH V R	Chip Variable Resistor	TAN. CAP.	Tantalum Capacitor
CH MG R	Chip Metal Glazed Resistor	CH C CAP.	Chip Ceramic Capacitor
COMP. R	Composition Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

RESISTORS									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% 0%

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### **REMOTE CONTROL UNIT PARTS LIST (RM-C305-1A).....**

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# USING P.W. BOARD & REMOTE CONTROL UNIT

## [AV-32230]

P.W.B ASS'Y	Model	AV-32230/G	AV-32230/H	AV-32230/M
MAIN PW BOARD		SAC-1535A-M2	SAC-1536A-M2	SAC-1537A-M2
CRT SOCKET PW BOARD		SAC-3508A-M2	SAC-3509A-M2	SAC-3510A-M2
FRONT CONTROL PW BOARD		SAC-8505A-M2	←	←
FRONT AV INPUT PW BOARD		SAC-8603A-M2	←	←
LF PW BOARD		SAC-9502A-M2	←	←
AV SELECTOR PW BOARD		SAC0S510A-M2	←	←
REMOTE CONTROL UNIT		RM-C306-1A	←	←

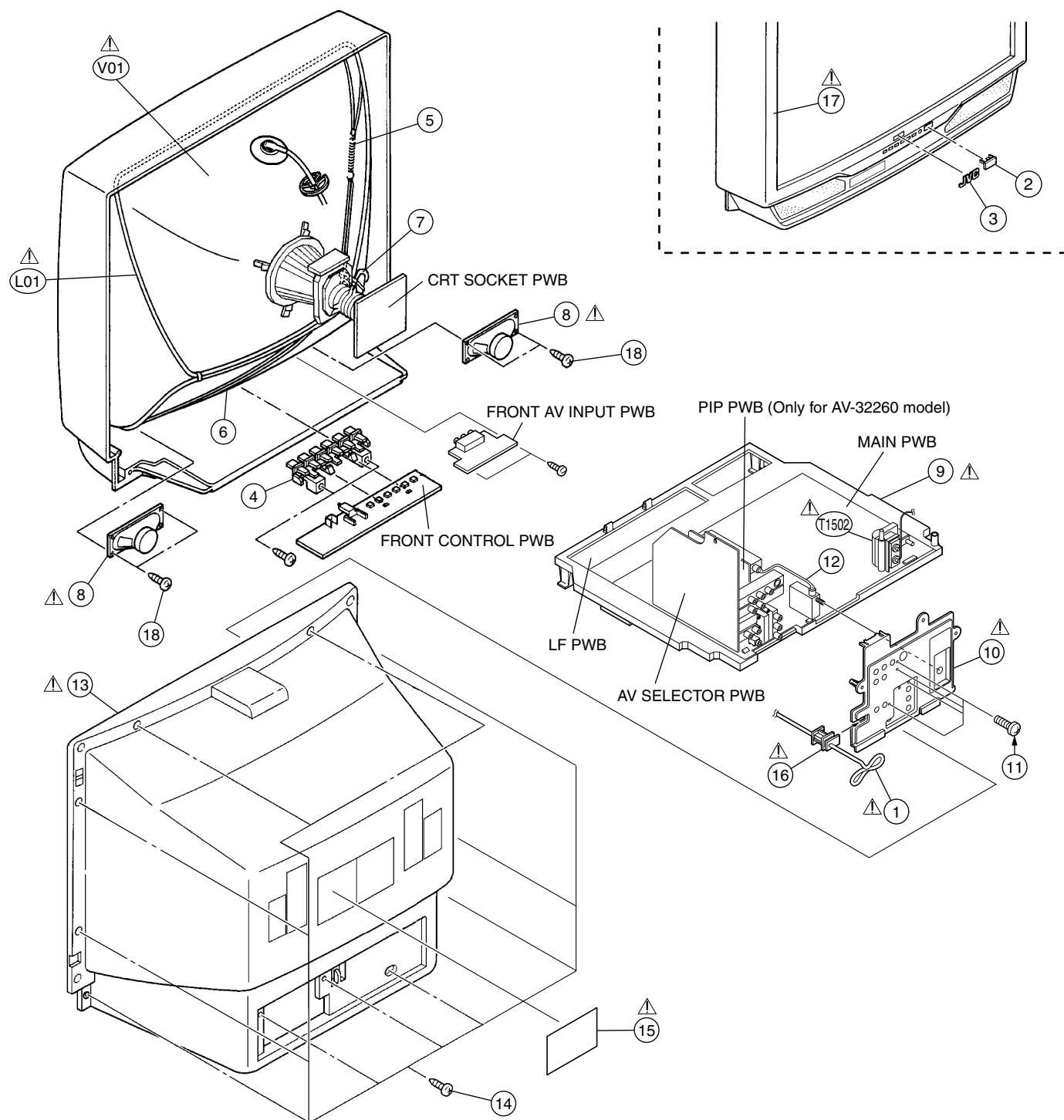
## [AV-32260]

P.W.B ASS'Y	Model	AV-32260/G	AV-32260/H	AV-32260/M
MAIN PW BOARD		SAC-1529A-M2	SAC-1530A-M2	SAC-1531A-M2
CRT SOCKET PW BOARD		SAC-3508A-M2	SAC-3509A-M2	SAC-3510A-M2
FRONT CONTROL PW BOARD		SAC-8505A-M2	←	←
FRONT AV INPUT PW BOARD		SAC-8603A-M2	←	←
LF PW BOARD		SAC-9502A-M2	←	←
PIP PW BOARD		SAC0P502A-M2	←	←
AV SELECTOR PW BOARD		SAC0S509A-M2	←	←
REMOTE CONTROL UNIT		RM-C305-1A	←	←

## EXPLODED VIEW PARTS LIST (AV-32230 & AV-32260)

△ Ref.No.	Part No.	Part Name	Description	Local
△ L01	QQW0086-001	DEG COIL	(AV-32230 <sub>G</sub> , AV-32260 <sub>G</sub> )	
△ L01	CELD0066-002JA	DEG COIL	(AV-32230 <sub>(H &amp; M)</sub> , AV-32260 <sub>(H &amp; M)</sub> )	
△ T1502	QQH0092-001	FBT	Within MAIN PWB	
△ V01	A80QCF240X14L	CRT	Inc. DY (AV-32230 <sub>G</sub> , AV-32260 <sub>G</sub> )	
△ V01	A80LJF30X08-G	CRT	Inc. DY (AV-32230 <sub>H</sub> , AV-32260 <sub>H</sub> )	
△ V01	M80JUA061X06	CRT	Inc. DY (AV-32230 <sub>M</sub> , AV-32260 <sub>M</sub> )	
△ 1	QMPD200-200-JC	POWER CORD	CN90PW Within LF PWB	
2	CM35983-001-H	REMOCON WINDOW		
3	CM48006-006-C	JVC MARK		
4	LC20674-001A-A	CONTROL KNOB		
5	A48457-4-S	SPRING		
6	WJY0016-002A	BRAIDED WIRE		
7	WJY0013-004A	BRAIDED WIRE		
△ 8	CEBSS12D-04KJ2	SPEAKER	(x2) SP01, SP02	
△ 9	LC11056-001A-A	CHASSIS BASE		
△ 10	LC20626-004B-A	TERMINAL BOARD		
11	QYSBSB3010Z	TAPPING SCREW	(x4)	
12	CHGY0031-0C	ANT CABLE ASSY	(Only for AV-32260)	
△ 13	CM12915-003-MA	REAR COVER		
14	QYSBSFG4016Z	TAPPING SCREW	(x11)	
△ 15	LC31139-001A-A	RATING LABEL		
△ 16	LC20106-001D-A	CORD CLAMP		
△ 17	CM12914-010-MA	FRONT CABINET		
18	QYSBSB4012Z	TAPPING SCREW	(x8)	

# EXPLODED VIEW



# PRINTED WIRING BOARD PARTS LIST (AV-32230/G)

## MAIN PW BOARD ASS'Y (SAC-1535A-M2)

△	Symbol No.	Part No.	Part Name	Description	Local	△	Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>						<b>RESISTOR</b>					
	R1001	NRSA63J-473X	MG R	47kΩ 1/16W J			R1522	NRSA63J-561X	MG R	560Ω 1/16W J	
	R1002	NRSA63J-102X	MG R	1kΩ 1/16W J			R1523	QRJ146J-333X	C R	33kΩ 1/4W J	
	R1003-04	NRSA63J-0R0X	MG R	0.0Ω 1/16W J		△	R1525	QRZ9011-470	F R	47Ω 1/2W J	
	R1011	NRSA63J-820X	MG R	82Ω 1/16W J			R1526	QRE121J-272Y	C R	2.7kΩ 1/2W J	
	R1012	NRSA63J-182X	MG R	1.8kΩ 1/16W J			R1527	QRE121J-154Y	C R	150kΩ 1/2W J	
	R1013	NRSA63J-562X	MG R	5.6kΩ 1/16W J			R1528	QRE121J-184Y	C R	180kΩ 1/2W J	
	R1014	QRE121J-101Y	C R	100Ω 1/2W J			R1529	NRSA63J-331X	MG R	330Ω 1/16W J	
	R1015	NRSA63J-180X	MG R	18Ω 1/16W J		△	R1531	QRJ146J-391X	C R	390Ω 1/4W J	
	R1016	NRSA63J-270X	MG R	27Ω 1/16W J			R1532	NRSA63J-273X	MG R	27kΩ 1/16W J	
	R1018	NRSA63J-104X	MG R	100kΩ 1/16W J			R1533-34	NRSA63J-123X	MG R	12kΩ 1/16W J	
	R1020	NRSA63J-332X	MG R	3.3kΩ 1/16W J		△	R1535	NRVA02D-242X	MF R	2.4kΩ 1/10W ±0.5%	
	R1021	NRSA63J-123X	MG R	12kΩ 1/16W J		△	R1537	NRZ0032-7151X	MF R	7.15kΩ	
	R1022	NRSA63J-151X	MG R	150Ω 1/16W J			R1538	NRSA63J-333X	MG R	33kΩ 1/16W J	
	R1023	NRSA63J-101X	MG R	100Ω 1/16W J			R1543	QRE121J-122Y	C R	1.2kΩ 1/2W J	
	R1024	NRSA63J-102X	MG R	1kΩ 1/16W J			R1544	QRE121J-392Y	C R	3.9kΩ 1/2W J	
	R1025	NRSA63J-561X	MG R	560Ω 1/16W J			R1545	QRE121J-822Y	C R	8.2kΩ 1/2W J	
	R1026	NRSA63J-331X	MG R	330Ω 1/16W J			R1546	NRSA63J-331X	MG R	330Ω 1/16W J	
	R1028	NRSA63J-821X	MG R	820Ω 1/16W J			R1547	NRSA63J-104X	MG R	100kΩ 1/16W J	
	R1038	NRSA63J-272X	MG R	2.7kΩ 1/16W J			R1548	QRE121J-152Y	C R	1.5kΩ 1/2W J	
	R1039-40	NRSA63J-0R0X	MG R	0.0Ω 1/16W J			R1553	QRL039J-180	OM R	18Ω 3W J	
	R1041	NRSA63J-272X	MG R	2.7kΩ 1/16W J			R1601-03	NRSA63J-750X	MG R	75Ω 1/16W J	
	R1042-43	NRSA63J-102X	MG R	1kΩ 1/16W J			R1610-12	NRSA63J-221X	MG R	220Ω 1/16W J	
	R1045-46	NRSA63J-0R0X	MG R	0.0Ω 1/16W J			R1700-02	NRSA63J-102X	MG R	1kΩ 1/16W J	
	R1047	NRSA63J-153X	MG R	15kΩ 1/16W J			R1704-05	NRSA63J-472X	MG R	4.7kΩ 1/16W J	
	R1048	NRSA63J-154X	MG R	150kΩ 1/16W J			R1706-07	NRSA63J-103X	MG R	10kΩ 1/16W J	
	R1101-02	NRSA63J-101X	MG R	100Ω 1/16W J			R1708-09	NRSA63J-101X	MG R	100Ω 1/16W J	
	R1111	NRSA63J-105X	MG R	1MΩ 1/16W J			R1715	NRSA63J-103X	MG R	10kΩ 1/16W J	
	R1131	NRSA63J-272X	MG R	2.7kΩ 1/16W J			R1721-22	NRSA63J-102X	MG R	1kΩ 1/16W J	
	R1134	NRSA63J-562X	MG R	5.6kΩ 1/16W J			R1724	NRSA63J-102X	MG R	1kΩ 1/16W J	
	R1135	NRSA63J-102X	MG R	1kΩ 1/16W J			R1726-28	NRSA63J-102X	MG R	1kΩ 1/16W J	
	R1140	NRSA63J-562X	MG R	5.6kΩ 1/16W J			R1729	NRSA63J-223X	MG R	22kΩ 1/16W J	
	R1141	NRSA63J-0R0X	MG R	0.0Ω 1/16W J			R1731-32	NRSA63J-101X	MG R	100Ω 1/16W J	
	R1201	NRSA63J-333X	MG R	33kΩ 1/16W J			R1733-34	NRSA63J-272X	MG R	2.7kΩ 1/16W J	
	R1231	NRSA63J-182X	MG R	1.8kΩ 1/16W J			R1737	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
	R1237	NRSA63J-392X	MG R	3.9kΩ 1/16W J			R1738	NRSA63J-102X	MG R	1kΩ 1/16W J	
	R1238	NRSA63J-473X	MG R	47kΩ 1/16W J			R1739	NRSA63J-272X	MG R	2.7kΩ 1/16W J	
	R1241	NRSA63J-332X	MG R	3.3kΩ 1/16W J			R1740	NRSA63J-103X	MG R	10kΩ 1/16W J	
	R1243	NRSA63J-152X	MG R	1.5kΩ 1/16W J			R1741	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	R1281	NRSA63J-182X	MG R	1.8kΩ 1/16W J			R1742-43	NRSA63J-103X	MG R	10kΩ 1/16W J	
	R1282	NRSA63J-392X	MG R	3.9kΩ 1/16W J			R1748	NRSA63J-103X	MG R	10kΩ 1/16W J	
	R1283	NRSA63J-681X	MG R	680Ω 1/16W J			R1749-51	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
	R1286	NRSA63J-472X	MG R	4.7kΩ 1/16W J			R1752	NRSA63J-102X	MG R	1kΩ 1/16W J	
	R1287	NRSA63J-101X	MG R	100Ω 1/16W J			R1753	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	R1288	NRSA02J-471X	MG R	470Ω 1/10W J			R1754	NRSA63J-102X	MG R	1kΩ 1/16W J	
	R1289	NRSA63J-154X	MG R	150kΩ 1/16W J			R1755	NRSA63J-153X	MG R	15kΩ 1/16W J	
	R1290	NRSA02J-561X	MG R	560Ω 1/10W J			R1756	NRSA63J-103X	MG R	10kΩ 1/16W J	
	R1291	NRSA63J-103X	MG R	10kΩ 1/16W J			R1764-68	NRSA63J-221X	MG R	220Ω 1/16W J	
	R1292	NRSA63J-123X	MG R	12kΩ 1/16W J			R1769-70	NRSA63J-682X	MG R	6.8kΩ 1/16W J	
	R1301-03	NRSA63J-222X	MG R	2.2kΩ 1/16W J			R1772	NRSA63J-103X	MG R	10kΩ 1/16W J	
	R1304-06	NRSA63J-101X	MG R	100Ω 1/16W J			R1774	NRSA63J-682X	MG R	6.8kΩ 1/16W J	
	R1354-55	NRSA63J-0R0X	MG R	0.0Ω 1/16W J			R1775	NRSA63J-473X	MG R	47kΩ 1/16W J	
	R1356	NRSA63J-123X	MG R	12kΩ 1/16W J			R1776	NRSA63J-272X	MG R	2.7kΩ 1/16W J	
	R1359	NRSA63J-103X	MG R	10kΩ 1/16W J			R1777	NRSA63J-103X	MG R	10kΩ 1/16W J	
	R1360	NRSA63J-0R0X	MG R	0.0Ω 1/16W J			R1793-95	NRSA63J-331X	MG R	330Ω 1/16W J	
	R1401	NRSA63J-822X	MG R	8.2kΩ 1/16W J			R1798-99	NRSA63J-103X	MG R	10kΩ 1/16W J	
	R1403	QRX01GJ-1R0	MF R	1.0Ω 1W J			R1800	NRSA63J-103X	MG R	10kΩ 1/16W J	
	R1405	NRSA63J-103X	MG R	10kΩ 1/16W J			R1801-04	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	R1407	NRSA02J-0R0X	MG R	0.0Ω 1/10W J			R1806	NRSA63J-102X	MG R	1kΩ 1/16W J	
	R1411-12	NRSA63J-103X	MG R	10kΩ 1/16W J			R1807	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
	R1414	QRL029J-221	OM R	220Ω 2W J			R1810	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	R1431	QRE121J-272Y	C R	2.7kΩ 1/2W J			R1811	NRSA63J-473X	MG R	47kΩ 1/16W J	
	R1432	NRSA63J-104X	MG R	100kΩ 1/16W J			R1812	NRSA63J-102X	MG R	1kΩ 1/16W J	
	R1433	NRSA63J-473X	MG R	47kΩ 1/16W J			R1814	NRSA63J-104X	MG R	100kΩ 1/16W J	
	R1434	NRSA63J-822X	MG R	8.2kΩ 1/16W J			R1815	NRSA63J-154X	MG R	150kΩ 1/16W J	
	R1435	NRSA63J-103X	MG R	10kΩ 1/16W J			R1816	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	R1501	NRSA63J-0R0X	MG R	0.0Ω 1/16W J			R1817	NRSA63J-104X	MG R	100kΩ 1/16W J	
	R1502	NRSA63J-271X	MG R	270Ω 1/16W J			R1818	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	R1503	QRE121J-103Y	C R	10kΩ 1/2W J			R1821	NRSA63J-104X	MG R	100kΩ 1/16W J	
	R1504	QRL039J-102	OM R	1kΩ 3W J			R1824	NRSA63J-103X	MG R	10kΩ 1/16W J	
	R1505	QRL039J-122	OM R	1.2kΩ 3W J			R1827	NRSA63J-102X	MG R	1kΩ 1/16W J	
	R1511	QRE121J-220Y	C R	22Ω 1/2W J		△	R1857	QRG029J-330	OM R	33Ω 2W J	
	R1512	QRE121J-681Y	C R	680Ω 1/2W J		△	R1858	QRG029J-180	OM R	18Ω 2W J	



△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>					<b>CAPACITOR</b>				
R1860	NRSA63J-562X	MG R	5.6kΩ 1/16W J		C1286	QETN1HM-106Z	E CAP.	10μF 50V M	
△ R1901	QRF074K-R47	UNF R	0.47Ω 7W K		C1287	QETN1CM-107Z	E CAP.	100μF 16V M	
△ R1909	QRG01GJ-470	OM R	47Ω 1W J		C1288	NCB31HK-103X	C CAP.	0.01μF 50V K	
R1911	QRE121J-223Y	C R	22kΩ 1/2W J		C1352	QETN1CM-336Z	E CAP.	33μF 16V M	
R1912-13	QRT029J-R22	MF R	0.22Ω 2W J		C1354	QFV71HJ-154Z	MF CAP.	0.15μF 50V J	
R1914	QRK126J-681X	C R	680Ω 1/2W J		C1391	QETN1CM-107Z	E CAP.	100μF 16V M	
R1915	QRE121J-270Y	C R	27Ω 1/2W J		C1392	NCB31HK-103X	C CAP.	0.01μF 50V K	
R1917	QRK126J-332X	C R	3.3kΩ 1/2W J		C1393-95	NCB21HK-104X	C CAP.	0.1μF 50V K	
R1918	QRE121J-222Y	C R	2.2kΩ 1/2W J		C1401	NDC21HJ-152X	C CAP.	1500pF 50V J	
R1919	QRE121J-684Y	C R	680kΩ 1/2W J		C1403	NCB21HK-273X	C CAP.	0.027μF 50V K	
R1924	QRE121J-222Y	C R	2.2kΩ 1/2W J		C1404	QETN1VM-107Z	E CAP.	100μF 35V M	
R1930	QRE121J-223Y	C R	22kΩ 1/2W J		C1405	QCS32HJ-100Z	C CAP.	10pF 500V J	
R1939	QRT039J-2R2	MF R	2.2Ω 3W J		C1407	QFLC2AK-563Z	M CAP.	0.056μF 100V K	
R1940	QRE121J-181Y	C R	180Ω 1/2W J		C1410	QFLC2AJ-104Z	M CAP.	0.1μF 100V J	
R1941	QRL029J-183	OM R	18kΩ 2W J		C1411	QETN1HM-105Z	E CAP.	1μF 50V M	
R1943	NRSA63J-104X	MG R	100kΩ 1/16W J		C1415	NCB21HK-104X	C CAP.	0.1μF 50V K	
R1944	NRSA63J-122X	MG R	1.2kΩ 1/16W J		C1421	QEHQ1VM-108	E CAP.	1000μF 35V M	
R1951	NRSA63J-473X	MG R	47kΩ 1/16W J		C1431	QETN1HM-105Z	E CAP.	1μF 50V M	
R1952	NRSA63J-102X	MG R	1kΩ 1/16W J		C1432	QETN1EM-476Z	E CAP.	47μF 25V M	
R1953	QRE121J-151Y	C R	150Ω 1/2W J		C1501	QCB32HK-151Z	C CAP.	150pF 500V K	
R1973	QRE121J-272Y	C R	2.7kΩ 1/2W J		C1502	QCB32HK-331Z	C CAP.	330pF 500V K	
R1975	QRE121J-223Y	C R	22kΩ 1/2W J		C1503	QEHK2CM-105Z	E CAP.	1μF 160V M	
R1977	QRE121J-473Y	C R	47kΩ 1/2W J		C1504	QEZ0203-107	E CAP.	100μF 160V M	
R1978	NRSA63J-333X	MG R	33kΩ 1/16W J		C1507-08	QEM61HK-475Z	E CAP.	4.7μF 50V K	
R1979-80	QRT029J-1R2	MF R	1.2Ω 2W J		△ C1510	QFZ0196-602	MPP CAP.	6000pF 1.5kVH±3%	
<b>CAPACITOR</b>					△ C1513	QFZ0198-133	MPP CAP.	0.013μF 1.5kVH±3%	
C1001	QETN1HM-475Z	E CAP.	4.7μF 50V M		△ C1514	QFP32GJ-183	PP CAP.	0.018μF 400V J	
C1002	QETN1HM-106Z	E CAP.	10μF 50V M		△ C1515	QFZ0197-754	MPP CAP.	0.75μF 250V J	
C1003	QETN1CM-108Z	E CAP.	1000μF 16V M		C1516	QCB32HK-561Z	C CAP.	560pF 500V K	
C1011-12	NCB31HK-103X	C CAP.	0.01μF 50V K		C1521	QETN2EM-106Z	E CAP.	10μF 250V M	
C1014	QETN1CM-107Z	E CAP.	100μF 16V M		C1523	QEHK1EM-108Z	E CAP.	1000μF 25V M	
C1015-16	NCB31HK-103X	C CAP.	0.01μF 50V K		C1524	QETN1EM-108Z	E CAP.	1000μF 25V M	
C1021	QFV71HJ-824Z	MF CAP.	0.82μF 50V J		C1525	QETN1VM-107Z	E CAP.	100μF 35V M	
C1023	QETN1CM-107Z	E CAP.	100μF 16V M		C1526	QFV21HJ-824Z	MF CAP.	0.82μF 50V J	
C1024	NCB31HK-103X	C CAP.	0.01μF 50V K		C1527	QFLC2AJ-103Z	M CAP.	0.01μF 100V J	
C1025	NCB31HK-102X	C CAP.	1000pF 50V K		C1531	QCB32HK-102Z	C CAP.	1000pF 500V K	
C1026	QETN1HM-474Z	E CAP.	0.47μF 50V M		C1533	QETN1HM-106Z	E CAP.	10μF 50V M	
C1027	NCB21HK-104X	C CAP.	0.1μF 50V K		C1601-03	QETN1EM-476Z	E CAP.	47μF 25V M	
C1028	QETN1HM-106Z	E CAP.	10μF 50V M		C1609-11	QFV71HJ-104Z	MF CAP.	0.1μF 50V J	
C1030	NCB31HK-103X	C CAP.	0.01μF 50V K		C1612	QETN1HM-105Z	E CAP.	1μF 50V M	
C1034	NCB31HK-103X	C CAP.	0.01μF 50V K		C1700	NCB31HK-102X	C CAP.	1000pF 50V K	
C1036	QETN1AM-477Z	E CAP.	470μF 10V M		C1703	NDC31HJ-181X	C CAP.	180pF 50V J	
C1037	NCB31HK-103X	C CAP.	0.01μF 50V K		C1706	QETN1HM-105Z	E CAP.	1μF 50V M	
C1038	QETN1CM-107Z	E CAP.	100μF 16V M		C1707	QETN1CM-107Z	E CAP.	100μF 16V M	
C1041-42	QETN1HM-106Z	E CAP.	10μF 50V M		C1710	NCB21EK-683X	C CAP.	0.068μF 25V K	
C1043-44	NDC31HJ-470X	C CAP.	47pF 50V J		C1721	NCB31HK-103X	C CAP.	0.01μF 50V K	
C1045	QETN1HM-106Z	E CAP.	10μF 50V M		C1722-23	NDC31HJ-390X	C CAP.	39pF 50V J	
C1046	NCB31HK-103X	C CAP.	0.01μF 50V K		C1724	NDC31HJ-471X	C CAP.	470pF 50V J	
C1047	NDC21HJ-330X	C CAP.	33pF 50V J		C1726	NDC21HJ-561X	C CAP.	560pF 50V J	
C1048	NCB31HK-103X	C CAP.	0.01μF 50V K		C1800	QETN1CM-107Z	E CAP.	100μF 16V M	
C1111	QETN0JM-228Z	E CAP.	2200μF 6.3V M		C1801	NCB21HK-104X	C CAP.	0.1μF 50V K	
C1112	NCB31HK-103X	C CAP.	0.01μF 50V K		C1802	QETN1CM-107Z	E CAP.	100μF 16V M	
C1113	QETN1HM-474Z	E CAP.	0.47μF 50V M		C1803	QETN1HM-106Z	E CAP.	10μF 50V M	
C1114	QETN1HM-105Z	E CAP.	1μF 50V M		C1804	NDC31HJ-102X	C CAP.	1000pF 50V J	
C1115	QFV71HJ-104Z	MF CAP.	0.1μF 50V J		C1805	NCB31HK-153X	C CAP.	0.015μF 50V K	
C1116	NCB21HK-104X	C CAP.	0.1μF 50V K		C1806-07	QETN1HM-106Z	E CAP.	10μF 50V M	
C1131	NDC31HJ-470X	C CAP.	47pF 50V J		C1810	QETN1HM-474Z	E CAP.	0.47μF 50V M	
C1136	QENC1CM-106Z	BP E CAP.	10μF 16V M		C1811	QETN1HM-105Z	E CAP.	1μF 50V M	
C1151	NCB31HK-103X	C CAP.	0.01μF 50V K		C1813	NCB31HK-102X	C CAP.	1000pF 50V K	
C1152	QENC1HM-105Z	BP E CAP.	1μF 50V M		C1816	NCB31HK-153X	C CAP.	0.015μF 50V K	
C1201	NDC31HJ-100X	C CAP.	10pF 50V J		C1853-54	QETN1CM-227Z	E CAP.	220μF 16V M	
C1202	QETN1HM-224Z	E CAP.	0.22μF 50V M		C1856	QETN1CM-227Z	E CAP.	220μF 16V M	
C1203	NCB31HK-222X	C CAP.	2200pF 50V K		C1857	QETN1CM-477Z	E CAP.	470μF 16V M	
C1233	NDC31HJ-560X	C CAP.	56pF 50V J		△ C1904-06	QCZ9054-102	C CAP.	1000pF 250V Z	
C1237	NCB31HK-103X	C CAP.	0.01μF 50V K		△ C1907	QEZ0169-477	E CAP.	470μF 200V M	
C1281	QFV71HJ-474Z	MF CAP.	0.47μF 50V J		△ C1908	QCZ9054-102	C CAP.	1000pF 250V Z	
C1282	QETN1CM-227Z	E CAP.	220μF 16V M		C1912	QCZ0340-222	C CAP.	2200pF 50V J	
C1283	NCB31HK-103X	C CAP.	0.01μF 50V K		C1913	QFLC1HJ-471Z	M CAP.	470pF 50V J	
C1284	QETN1HM-225Z	E CAP.	2.2μF 50V M		C1914	QETN1HM-107Z	E CAP.	100μF 50V M	
C1285	NCB31HK-103X	C CAP.	0.01μF 50V K		C1916	NDC31HJ-331X	C CAP.	330pF 50V J	
					C1917	NCB21HK-122X	C CAP.	1200pF 50V K	
					C1918	NCB21HK-104X	C CAP.	0.1μF 50V K	

△ Symbol No.	Part No.	Part Name	Description	Local
<b>CAPACITOR</b>				
C1919	QFP32GJ-103	PP CAP.	0.01μF 400V	J
C1925	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
C1931	QE20203-107	E CAP.	100μF 160V	M
C1932	QETN1CM-108Z	E CAP.	1000μF 16V	M
C1933	QETM1EM-228	E CAP.	2200μF 25V	M
C1935	QETN1EM-108Z	E CAP.	1000μF 25V	M
C1937	QCZ0340-102	C CAP.	1000pF	
C1938	QETM1EM-228	E CAP.	2200μF 25V	M
C1939	QCB32HK-152Z	C CAP.	1500pF 500V	K
C1941	QCB32HK-102Z	C CAP.	1000pF 500V	K
C1942	QEHR1HM-105Z	E CAP.	1μF 50V	M
C1943	QETN1CM-108Z	E CAP.	1000μF 16V	M
C1948	QETN1EM-476Z	E CAP.	47μF 25V	M
C1951	QETN1CM-477Z	E CAP.	470μF 16V	M
C1971	QETN1CM-107Z	E CAP.	100μF 16V	M
C1972	QETN1EM-476Z	E CAP.	47μF 25V	M
C1973	QETN1HM-106Z	E CAP.	10μF 50V	M
△ C1998-99	QCZ9074-103	C CAP.	0.01μF 125V	M

<b>TRANSFORMER</b>				
T1501	CE42034-002	H.DRIVE TRANSF.		
△ T1502	QQH0092-001	H.V.TRANSF.		
△ T1921	QQS0098-001	SWITCH.TRANSF.		
△ T1951	QQT0315-001	POWER TRANSF.		

<b>COIL</b>				
△ L1001	QQL244K-560Z	PEAKING COIL	56μH	K
L1012	QQLZ014-R39	PEAKING COIL	0.39μH	
L1021	QRN143J-0R0X	C R	0.0Ω	1/4W J
L1022	QQL244K-220Z	PEAKING COIL	22μH	K
L1027	QRN143J-0R0X	C R	0.0Ω	1/4W J
L1041	QRN143J-0R0X	C R	0.0Ω	1/4W J
L1042	QQL244K-220Z	PEAKING COIL	22μH	K
L1101	QQL244K-470Z	COIL	47μH	K
L1232	QQL244K-560Z	PEAKING COIL	56μH	K
△ L1511	QQR1027-003	LINE FILTER		
L1512	QQLZ027-821	CHOKE COIL	820μH	
△ L1521	QQLZ026-410	HEATER CHOKE	41μH	
L1700	QQL244K-4R7Z	COIL	4.7μH	K
L1810	QQL244J-100Z	COIL	10μH	J
L1931	QQL26AK-470Z	COIL	47μH	K
L1933	QQL26AK-470Z	COIL	47μH	K
L1937	QQL26AK-470Z	COIL	47μH	K

<b>DIODE</b>				
D1101-02	MTZJ8.2C-T2	ZENER DIODE		
D1305-10	1SS133-T2	SI.DIODE		
D1352	MTZJ9.1C-T2	ZENER DIODE		
D1353	1SS133-T2	SI.DIODE		
D1401	1SR35-400A-T2	SI.DIODE		
D1431	1SR35-400A-T2	SI.DIODE		
D1432	1SS133-T2	SI.DIODE		
D1501	RH3G-F1	SI.DIODE		
D1502	RU3AM-LFC4	SI.DIODE		
D1521	RH1S-T3	SI.DIODE		
D1523	RGP10J-5025-T3	SI.DIODE		
D1524	RGP10J-5025-T3	SI.DIODE		
D1525-26	1SS81-T5	SI.DIODE		
D1527	1SR124-400A-T2	SI.DIODE		
D1529	MTZJ5.1C-T2	ZENER DIODE		
△ D1531	MA4068N/Z1/-T2	ZENER DIODE		
D1535	1SS133-T2	SI.DIODE		
D1537	1SR35-400A-T2	SI.DIODE		
D1601	MTZJ9.1C-T2	ZENER DIODE		
D1603	MTZJ9.1C-T2	ZENER DIODE		
D1606	MTZJ9.1C-T2	ZENER DIODE		
D1701	1SS133-T2	SI.DIODE		
D1706-10	MTZJ8.2C-T2	ZENER DIODE		
D1721-22	1SS133-T2	SI.DIODE		

△ Symbol No.	Part No.	Part Name	Description	Local
<b>DIODE</b>				
D1723-24	MTZJ5.6B-T2	ZENER DIODE		
D1800	1SS81-T2	SI.DIODE		
D1801	1SS133-T2	SI.DIODE		
D1810	MTZJ8.2C-T2	ZENER DIODE		
D1811	1SS133-T2	SI.DIODE		
△ D1901	D3SBA60	DIODE BRIDGE		
D1910	MA700A-T2	SI.DIODE		
△ D1911	RGP10J-5025-T3	SI.DIODE		
△ D1912	RGP10J-5025-T3	SI.DIODE		
△ D1913	RGP10J-5025-T3	SI.DIODE		
D1914	1SS133-T2	SI.DIODE		
D1915	SARS01-T2	SI.DIODE		
D1917	MTZJ30A-T2	ZENER DIODE		
D1918	MTZJ5.1C-T2	ZENER DIODE		
D1920	1SS133-T2	SI.DIODE		
D1931	RU30A-F1	SI.DIODE		
D1933	RU3YX-LFC4	SI.DIODE		
D1935	RU3YX-LFC4	SI.DIODE		
D1937	RGP10J-5025-T3	SI.DIODE		
D1941	MTZJ33A-T2	ZENER DIODE		
D1945	1SS133-T2	SI.DIODE		
D1952-53	1SS133-T2	SI.DIODE		
D1954-57	1SR35-400A-T2	SI.DIODE		
D1972	MTZJ15C-T2	ZENER DIODE		
D1973	1SS133-T2	SI.DIODE		

<b>TRANSISTOR</b>				
Q1011	2SC5083/L-P/-T	SI.TRANSISTOR		
Q1021	2SC2412K/QR/-X	SI.TRANSISTOR		
Q1024	2SC2412K/QR/-X	SI.TRANSISTOR		
Q1025	2SA1037AK/QR/-X	SI.TRANSISTOR		
Q1041	2SA1037AK/QR/-X	SI.TRANSISTOR		
Q1131	2SC2412K/QR/-X	SI.TRANSISTOR		
Q1232-33	2SC2412K/QR/-X	SI.TRANSISTOR		
Q1352	2SC2412K/QR/-X	SI.TRANSISTOR		
Q1431	2SC2412K/QR/-X	SI.TRANSISTOR		
Q1501	2SC4212/Z1/-	SI.TRANSISTOR		
△ Q1511	2SD2559-LB	SI.TRANSISTOR		
Q1531	2SC2785/JH/-T	SI.TRANSISTOR		
Q1532	2SA1037AK/QR/-X	SI.TRANSISTOR		
Q1541-42	2SA1037AK/QR/-X	SI.TRANSISTOR		
△ Q1543	2SD1408/OY/-LB	SI.TRANSISTOR		
Q1700	2SC2412K/QR/-X	SI.TRANSISTOR		
Q1701	2SA1037AK/QR/-X	SI.TRANSISTOR		
Q1703	2SA1037AK/QR/-X	SI.TRANSISTOR		
Q1706	2SC2412K/QR/-X	SI.TRANSISTOR		
Q1711	DTC124EKA-X	DIGI.TRANSISTOR		
Q1810	DTC144EKA-X	DIGI.TRANSISTOR		
Q1941	2SC2412K/QR/-X	SI.TRANSISTOR		
Q1951	2SD1383K/AB/-X	SI.TRANSISTOR		
Q1971	2SA1208/ST/Z1-T	SI.TRANSISTOR		

<b>IC</b>				
IC1101	TB1253AN	I.C.(M)		
△ IC1401	LA7841	I.C.(MONO-ANA)		
IC1701	MN1876478JL1	I.C.(MICRO-COMP)		
IC1702	AT24C04-32D502	I.C.(MEMORY-OTH)	(SERVICE)	
IC1703	MM1437AF-X	I.C.(MONO-ANA)		
IC1852	AN7809F	I.C.(MONO-ANA)		
IC1853	AN7805F	I.C.(MONO-ANA)		
IC1911	STR-G6624/F8	I.C.(HYBRID)		
△ IC1921	SE135N	I.C.(HYBRID)		

<b>OTHERS</b>				
CF1001	QAX0349-001	CERAMIC FILTER		
CF1021	QAX0639-001Z	CERAMIC FILTER		
CF1041	QAX0642-001Z	CERAMIC FILTER		
△ CP1932	ICP-N75-Y	I.C.PROTECT		
△ CP1933	ICP-N75-Y	I.C.PROTECT		
△ CP1936	ICP-N75-Y	I.C.PROTECT		

## FRONT CONTROL PW BOARD ASS'Y (SAC-8505A-M2)

△ Symbol No.	Part No.	Part Name	Description	Local
<b>OTHERS</b>				
△ F1905	QMFZ034-5R0Z-J1	FUSE		
△ FR1521	QRK126J-150X	C R	15Ω 1/2W J	
△ FR1523-24	QRX029J-3R3	MF R	3.3Ω 2W J	
△ FR1525	QRZ9017-4R7	F R	470Ω 1/4W J	
J1601	QNN0349-002	PIN JACK		
J1810	QNS0001-001	JACK		
K1401	QQR0621-002Z	BEADS CORE		
K1912	QQR0582-001Z	BEADS CORE		
K1916-17	QQR0582-001Z	BEADS CORE		
K1931-33	QQR0582-001Z	BEADS CORE		
K1935	QQR0582-001Z	BEADS CORE		
K1937	QQR0582-001Z	BEADS CORE		
K1940	QQR0582-001Z	BEADS CORE		
K1941	QQR0621-002Z	BEADS CORE		
LC1601-03	NQR0169-001X	EMI FILTER		
△ PC1921	TLP421F/D4-GR/	I.C.(PH.COUPLER)		
△ RY1941	QSK0120-001	RELAY		
△ RY1951	QSK0113-001	RELAY		
SF1011	QAX0324-002	SAW FILTER		
△ TH1901	QAD0129-3R0	P.THERMISTOR		
△ TU1001	QAU0176-001	TUNER		
X1201	CE40668-001Z	CRYSTAL		
X1700	QAX0307-001	CER.RESONATOR		

## CRT SOCKET PW BOARD ASS'Y (SAC-3508A-M2)

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R3354-56	NRSA63J-221X	MG R	220Ω 1/16W J	
R3357-59	NRSA63J-101X	MG R	100Ω 1/16W J	
R3360-62	QRZ0111-152	C R	1.5kΩ 1/2W K	
R3363-65	QRG029J-103	OM R	10kΩ 2W J	
R3366-68	NRSA63J-182X	MG R	1.8kΩ 1/16W J	
R3372-74	NRSA63J-221X	MG R	220Ω 1/16W J	
R3375-77	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R3381	QRE121J-394Y	C R	390kΩ 1/2W J	
R3391	NRSA63J-152X	MG R	1.5kΩ 1/16W J	
R3392	NRSA63J-392X	MG R	3.9kΩ 1/16W J	
R3393-95	NRSA63J-102X	MG R	1kΩ 1/16W J	

**CAPACITOR**

C3354-55	NDC31HJ-331X	C CAP.	330pF 50V J	
C3356	NDC31HJ-391X	C CAP.	390pF 50V J	
C3357	QETN1CM-107Z	E CAP.	100μF 16V M	
C3382	QCZ0121-102	C CAP.	1000pF 300V Z	
C3391	QETN1AM-227Z	E CAP.	220F 10V M	
C3392	NDC31HJ-101X	C CAP.	100pF 50V J	

**COIL**

L3381	QQL244K-101Z	PEAKING COIL	100μH	K
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**DIODE**

D3391	1SS133-T2	SI.DIODE		
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**TRANSISTOR**

Q3351-53	2SC4544-LB	SI.TRANSISTOR		
Q3391	2SA933AS/QR/-T	SI.TRANSISTOR		

**OTHERS**

△ SK3351	QNZ0464-001	C.R.T.SOCKET		
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△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R8702	NRSA63J-472X	MG R	4.7kΩ 1/16W J	
R8703	NRSA63J-153X	MG R	15kΩ 1/16W J	
R8705	NRSA63J-472X	MG R	4.7kΩ 1/16W J	
R8706	NRSA63J-153X	MG R	15kΩ 1/16W J	
R8707	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
R8708	NRSA63J-681X	MG R	680Ω 1/16W J	
R8709	NRSA63J-561X	MG R	560Ω 1/16W J	

**CAPACITOR**

C8701	QETN1EM-476Z	E CAP.	47μF 25V M	
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**DIODE**

D8701	GL2PR6	L.E.D.(RED)		
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**TRANSISTOR**

Q8701-02	DTA124EKA-X	DIGI.TRANSISTOR		
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**IC**

IC8701	PIC-28143SY	IFR DETECT UNIT		
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**OTHERS**

	CM46978-A01-H	L.E.D.HOLDER		
S8701	QSW0707-001Z	TACT SWITCH	POWER	
S8702	QSW0707-001Z	TACT SWITCH	MENU	
S8703	QSW0707-001Z	TACT SWITCH	CH-	
S8704	QSW0707-001Z	TACT SWITCH	CH+	
S8705	QSW0707-001Z	TACT SWITCH	VOL-	
S8706	QSW0707-001Z	TACT SWITCH	VOL+	

## FRONT AV INPUT PW BOARD ASS'Y (SAC-8603A-M2)

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R8401	NRSA63J-750X	MG R	75Ω 1/16W J	
R8402-03	NRSA63J-224X	MG R	220kΩ 1/16W J	
<b>CAPACITOR</b>				
C8401	QETN1HM-474Z	E CAP.	0.47μF 50V M	
C8402-03	QETN1HM-105Z	E CAP.	1μF 50V M	
<b>OTHERS</b>				
J8401	QNN0417-001	PIN JACK		
LC8401	QQR1199-001	FILTER		

## LF PW BOARD ASS'Y (SAC-9502A-M2)

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R9997	QRE121J-5R6Y	C R	5.6Ω 1/2W J	
△ R9998	QRZ9041-275	C R	2.7MΩ 1/2W K	
<b>CAPACITOR</b>				
△ C9901	QFZ9067-104	MM CAP.	0.1μF	
△ C9902	QFZ9067-473	MM CAP.	0.047μF	
△ C9904	QCZ9052-102	C CAP.	1000pF	
<b>OTHERS</b>				
△ CN90PW	QMPD200-200-JC	POWER CORD		
△ F9901	QMF0007-5R0J1	FUSE	5A	
FC9901	CEMG002-001Z	FUSE CLIP		
△ LF9902	QQR0527-003	LINE FILTER		
△ VA9901	ERZV10V621CS	VARISTOR		

## AV SELECTOR PW BOARD ASS'Y (SAC0S510A-M2)

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R0081	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0082	NRSA63J-682X	MG R	6.8kΩ 1/16W J	
R0083	NRSA63J-153X	MG R	15kΩ 1/16W J	
R0084	NRSA63J-683X	MG R	68kΩ 1/16W J	
R0085	NRSA63J-332X	MG R	3.3kΩ 1/16W J	
R0086	NRSA63J-333X	MG R	33kΩ 1/16W J	
R0087	NRSA63J-153X	MG R	15kΩ 1/16W J	
R0088	NRSA63J-152X	MG R	1.5kΩ 1/16W J	
R0089	NRSA63J-562X	MG R	5.6kΩ 1/16W J	
R0090	NRSA63J-563X	MG R	56kΩ 1/16W J	
R0202	NRSA63J-101X	MG R	100Ω 1/16W J	
R0210	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R0211	NRSA63J-153X	MG R	15kΩ 1/16W J	
R0212	NRSA63J-333X	MG R	33kΩ 1/16W J	
R0213	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0214	NRSA63J-181X	MG R	180Ω 1/16W J	
R0215	NRSA63J-152X	MG R	1.5kΩ 1/16W J	
R0216	NRSA63J-182X	MG R	1.8kΩ 1/16W J	
R0217	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0218	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
R0223	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R0229	NRSA63J-473X	MG R	47kΩ 1/16W J	
R0230	NRSA63J-223X	MG R	22kΩ 1/16W J	
R0231	NRSA63J-101X	MG R	100Ω 1/16W J	
R0232	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0233	NRSA63J-272X	MG R	2.7kΩ 1/16W J	
R0234	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0235-36	NRSA63J-101X	MG R	100Ω 1/16W J	
R0238	NRSA63J-822X	MG R	8.2kΩ 1/16W J	
R0239	NRSA63J-123X	MG R	12kΩ 1/16W J	
R0241	NRSA63J-821X	MG R	820Ω 1/16W J	
R0242	NRSA63J-474X	MG R	470kΩ 1/16W J	
R0243-44	NRSA63J-103X	MG R	10kΩ 1/16W J	
R0247	NRSA63J-101X	MG R	100Ω 1/16W J	
R0251	NRSA63J-471X	MG R	470Ω 1/16W J	
R0253	NRSA63J-681X	MG R	680Ω 1/16W J	
R0254	NRSA63J-391X	MG R	390Ω 1/16W J	
R0255	NRSA63J-681X	MG R	680Ω 1/16W J	
R0258	NRSA63J-101X	MG R	100Ω 1/16W J	
R0259	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
R0261	NRSA63J-101X	MG R	100Ω 1/16W J	
R0262	NRSA63J-222X	MG R	2.2kΩ 1/16W J	

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R0263	NRSA63J-471X	MG R	470Ω 1/16W J	
R0265	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0269	NRSA63J-681X	MG R	680Ω 1/16W J	
R0270	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0301-02	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
R0303-04	NRSA63J-221X	MG R	220Ω 1/16W J	
R0305-06	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R0331-34	NRSA63J-101X	MG R	100Ω 1/16W J	
R0371-74	NRSA63J-103X	MG R	10kΩ 1/16W J	
R0375-76	NRSA63J-333X	MG R	33kΩ 1/16W J	
R0377-78	NRSA63J-472X	MG R	4.7kΩ 1/16W J	
R0385	NRSA63J-223X	MG R	22kΩ 1/16W J	
R0387	NRSA63J-223X	MG R	22kΩ 1/16W J	
R0391-92	NRSA63J-221X	MG R	220Ω 1/16W J	
R0393-94	NRSA63J-823X	MG R	82kΩ 1/16W J	
R0395-96	NRSA63J-221X	MG R	220Ω 1/16W J	
R0401	NRSA63J-183X	MG R	18kΩ 1/16W J	
R0402	NRSA63J-223X	MG R	22kΩ 1/16W J	
R0458	NRSA63J-333X	MG R	33kΩ 1/16W J	
R0459	NRSA63J-183X	MG R	18kΩ 1/16W J	
R0501-02	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0504-05	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0507-08	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0509	NRSA63J-221X	MG R	220Ω 1/16W J	
R0518	NRSA63J-333X	MG R	33kΩ 1/16W J	
R0519-21	NRSA63J-750X	MG R	75Ω 1/16W J	
R0522-23	NRSA63J-224X	MG R	220kΩ 1/16W J	
R0528-29	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R0532-33	NRSA63J-224X	MG R	220kΩ 1/16W J	
R0558-61	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R0566-67	NRSA63J-331X	MG R	330Ω 1/16W J	
R0571	NRSA63J-101X	MG R	100Ω 1/16W J	
R0573	NRSA63J-272X	MG R	2.7kΩ 1/16W J	
R0574	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R0906	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
<b>CAPACITOR</b>				
C0081	NCB21HK-104X	C CAP.	0.1μF 50V K	
C0082	QENC1HM-475Z	BP E CAP.	4.7μF 50V M	
C0083	QENC1HM-105Z	BP E CAP.	1μF 50V M	
C0084	QETN1HM-225Z	E CAP.	2.2μF 50V M	
C0085	NCB21HK-473X	C CAP.	0.047μF 50V K	
C0086	QETN1HM-474Z	E CAP.	0.47μF 50V M	
C0087-88	NCB21HK-104X	C CAP.	0.1μF 50V K	
C0089	QETN1HM-335Z	E CAP.	3.3μF 50V M	
C0090	QETN1HM-105Z	E CAP.	1μF 50V M	
C0091	QETN1HM-106Z	E CAP.	10μF 50V M	
C0092-93	QETN1HM-105Z	E CAP.	1μF 50V M	
C0094	QETN1HM-475Z	E CAP.	4.7μF 50V M	
C0095	QETN1HM-105Z	E CAP.	1μF 50V M	
C0205	QETN1HM-476Z	E CAP.	47μF 50V M	
C0206	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0211	QENC1EM-106Z	BP E CAP.	10μF 25V M	
C0212	NDC31HJ-101X	C CAP.	100pF 50V J	
C0213	NDC31HJ-470X	C CAP.	47pF 50V J	
C0214	NDC31HJ-181X	C CAP.	180pF 50V J	
C0215	QETN1HM-474Z	E CAP.	0.47μF 50V M	
C0223	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0226	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0231-33	QETN1HM-106Z	E CAP.	10μF 50V M	
C0234	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0235	QETN1HM-106Z	E CAP.	10μF 50V M	
C0236	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0237	NCB31HK-472X	C CAP.	4700pF 50V K	
C0238-39	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0241-45	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0246	NDC31HJ-181X	C CAP.	180pF 50V J	
C0247-49	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0251	QETN1HM-476Z	E CAP.	47μF 50V M	
C0252	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0255	NDC31HJ-390X	C CAP.	39pF 50V J	
C0263	NDC31HJ-150X	C CAP.	15pF 50V J	

△ Symbol No.	Part No.	Part Name	Description	Local
<b>CAPACITOR</b>				
C0264	QENC1HM-474Z	BP E CAP.	0.47μF	50V M
C0265	NCB31HK-103X	C CAP.	0.01μF	50V K
C0309-10	NCB31HK-102X	C CAP.	1000pF	50V K
C0311-12	NRSA63J-0R0X	MG R	0.0Ω	1/16W J
C0331	QETN1CM-107Z	E CAP.	100μF	16V M
C0332	NCB31HK-103X	C CAP.	0.01μF	50V K
C0333	QETN1EM-476Z	E CAP.	47μF	25V M
C0334	NCB21HK-273X	C CAP.	0.027μF	50V K
C0335	QETN1HM-225Z	E CAP.	2.2μF	50V M
C0336	NCB31HK-222X	C CAP.	2200pF	50V K
C0337	NCB21HK-104X	C CAP.	0.1μF	50V K
C0338	QETN1HM-225Z	E CAP.	2.2μF	50V M
C0339	NCB31HK-222X	C CAP.	2200pF	50V K
C0340	NCB21HK-104X	C CAP.	0.1μF	50V K
C0343	QETN1HM-105Z	E CAP.	1μF	50V M
C0344-45	QENC1HM-225Z	BP E CAP.	2.2μF	50V M
C0371-72	QENC1HM-105Z	BP E CAP.	1μF	50V M
C0373	QETN1EM-476Z	E CAP.	47μF	25V M
C0391-92	QETN1HM-474Z	E CAP.	0.47μF	50V M
C0401	QETN1CM-107Z	E CAP.	100μF	16V M
C0402-03	NCF21CZ-105X	C CAP.	1μF	16V Z
C0404	QFV71HJ-224Z	MF CAP.	0.22μF	50V J
C0407	QETN1EM-108Z	E CAP.	1000μF	25V M
C0410-11	QETN1EM-108Z	E CAP.	1000μF	25V M
C0412-13	QETN1HM-105Z	E CAP.	1μF	50V M
C0501-02	NCB31HK-103X	C CAP.	0.01μF	50V K
C0503	QETN1HM-226Z	E CAP.	22μF	50V M
C0504	QETN1EM-476Z	E CAP.	47μF	25V M
C0505	QENC1HM-474Z	BP E CAP.	0.47μF	50V M
C0508	QETN1HM-474Z	E CAP.	0.47μF	50V M
C0509	NCB31HK-103X	C CAP.	0.01μF	50V K
C0511	QETN1HM-474Z	E CAP.	0.47μF	50V M
C0512-13	QETN1HM-105Z	E CAP.	1μF	50V M
C0520-21	QETN1HM-105Z	E CAP.	1μF	50V M
C0531-32	NCB31HK-103X	C CAP.	0.01μF	50V K
C0536-39	NCB31HK-103X	C CAP.	0.01μF	50V K
<b>COIL</b>				
L0202	QQL244K-150Z	COIL	15μH	K
L0211	QQL244K-4R7Z	COIL	4.7μH	K
L0242-43	QQL244K-4R7Z	COIL	4.7μH	K
L0261	QQL244K-150Z	COIL	15μH	K
<b>DIODE</b>				
D0391-92	MTZJ10C-T2	ZENER DIODE		
D0501-02	MTZJ10C-T2	ZENER DIODE		
D0504	MTZJ10C-T2	ZENER DIODE		
D0509	MTZJ10C-T2	ZENER DIODE		
D0511	MTZJ10C-T2	ZENER DIODE		
D0515-19	MTZJ10C-T2	ZENER DIODE		
D0521	MTZJ10C-T2	ZENER DIODE		
<b>TRANSISTOR</b>				
Q0211-12	2SC2412K/QR/-X	SI.TRANSISTOR		
Q0218	2SC2412K/QR/-X	SI.TRANSISTOR		
Q0219	2SA1037AK/QR/-X	SI.TRANSISTOR		
Q0251	2SC2412K/QR/-X	SI.TRANSISTOR		
Q0252	2SA1037AK/QR/-X	SI.TRANSISTOR		
Q0253	2SC2412K/QR/-X	SI.TRANSISTOR		
Q0261-62	2SC2412K/QR/-X	SI.TRANSISTOR		
Q0263	2SA1037AK/QR/-X	SI.TRANSISTOR		
Q0301-02	DTC124EKA-X	DIGI.TRANSISTOR		
Q0385	DTC323TK-X	DIGI.TRANSISTOR		
Q0387	DTC323TK-X	DIGI.TRANSISTOR		
Q0453	2SC2412K/QR/-X	SI.TRANSISTOR		
Q0454	DTC124EKA-X	DIGI.TRANSISTOR		
Q0509	2SC2412K/QR/-X	SI.TRANSISTOR		
<b>IC</b>				
IC0001	UPC1851BCU	I.C.(MONO-ANA)		

△ Symbol No.	Part No.	Part Name	Description	Local
<b>IC</b>				
IC0201	TC90A53N	I.C.(DIGI-MOS)		
IC0371	BA15218N	I.C.(MONO-ANA)		
IC0401	LA4485	I.C.(MONO-ANA)		
IC0501	CXA2089Q-X	I.C.(MONO-ANA)		
<b>OTHERS</b>				
J0501	QNZ0454-001	PIN JACK		
J0502-03	QNN0348-001	PIN JACK		

## REMOTE CONTROL UNIT PARTS LIST (RM-C306-1A)

△ Ref.No.	Part No.	Part Name	Description	Local
	UR52EC1286A	BATTERY COVER		

DIFFERENCE PARTS LIST BETWEEN AV-32230/G, AV-32230/H AND AV-32230/M

The picture tubes used for the models AV-32230/G, AV-32260/H and AV-32260/M are difference. The electrical parts are also difference according to the PICTURE TUBE.

In the DIFFERENCE PARTS LIST BETWEEN AV-32230/G, AV-32230/H and AV-32230/M, only difference points between these models are written. For other parts not mentioned in the list, please refer to the PARTS LIST(P40 – P45) for the AV-32230/G.

DIFFERENCE PARTS LIST

MAIN PWB

⚠	Symbol No.	Part No.			Part Name
		AV-32230/G	AV-32230/H	AV-32230/M	
		SAC-1535A-M2	SAC-1536A-M2	SAC-1537A-M2	MAIN PWB
	R1404	—	QRE121J-100Y(10Ω, 1/2W,J)	←	C R
	R1776	NRSA63J-272X(2.7kΩ, 1/16W,J)	NRSA63J-123X(12kΩ, 1/16W,J)	←	C R
⚠	C1510	QFZ0196-602(6000pF,1.5kVH,±3%)	QFZ0196-502(5000pF,1.5kVH,±3%)	QFZ0196-402(4000pF,1.5kVH,±3%)	MPP CAP.
⚠	C1515	QFZ0197-754(0.75μF,250V,J)	QFZ0197-564(0.56μF,250V,J)	←	MPP CAP.
⚠	L1521	QQLZ026-410(41μH)	QQLZ026-460(46μH)	QQLZ026-540(54μH)	HEATER CHOKE

CRT SOCKET PWB

⚠	Symbol No.	Part No.			Part Name
		AV-32230/G	AV-32230/H	AV-32230/M	
		SAC-3508A-M2	SAC-3509A-M2	SAC-3510A-M2	CRT SOCKET PWB

CRT SOCKET PW BOARD ASS'Y (SAC-3509A-M2)

⚠	Symbol No.	Part No.	Part Name	Description	Local
RESISTOR					
	R3354-56	NRSA63J-221X	MG R	220Ω 1/16W J	
	R3357-59	NRSA63J-101X	MG R	100Ω 1/16W J	
	R3360-62	QRZ0111-152	C R	1.5kΩ 1/2W K	
	R3363-65	QRG029J-103	OM R	10kΩ 2W J	
	R3366-68	NRSA63J-182X	MG R	1.8kΩ 1/16W J	
	R3372-74	NRSA63J-221X	MG R	220Ω 1/16W J	
	R3375-77	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	R3381	QRE121J-394Y	C R	390kΩ 1/2W J	
	R3391	NRSA63J-152X	MG R	1.5kΩ 1/16W J	
	R3392	NRSA63J-392X	MG R	3.9kΩ 1/16W J	
	R3393-95	NRSA63J-102X	MG R	1kΩ 1/16W J	
CAPACITOR					
	C3354-55	NDC31HJ-331X	C CAP.	330pF 50V J	
	C3356	NDC31HJ-391X	C CAP.	390pF 50V J	
	C3357	QETN1CM-107Z	E CAP.	100μF 16V M	
	C3382	QCZ0121-102	C CAP.	1000pF 3000K Z	
	C3391	QETN1AM-227Z	E CAP.	220F 10V M	
	C3392	NDC31HJ-101X	C CAP.	100pF 50V J	
COIL					
	L3381	QQL244K-101Z	PEAKING COIL	100μH K	
DIODE					
	D3391	1SS133-T2	SI.DIODE		
TRANSISTOR					
	Q3351-53	2SC4544-LB	SI.TRANSISTOR		
	Q3391	2SA933AS/QR/-T	SI.TRANSISTOR		
OTHERS					
⚠	SK3351	QNZ0464-001	C.R.T.SOCKET		

CRT SOCKET PW BOARD ASS'Y (SAC-3510A-M2)

⚠	Symbol No.	Part No.	Part Name	Description	Local
RESISTOR					
	R3354-56	NRSA63J-221X	MG R	220Ω 1/16W J	
	R3357-59	NRSA63J-101X	MG R	100Ω 1/16W J	
	R3360-62	QRZ0111-152	C R	1.5kΩ 1/2W K	
	R3363-65	QRG029J-103	OM R	10kΩ 2W J	
	R3366-68	NRSA63J-182X	MG R	1.8kΩ 1/16W J	
	R3372-74	NRSA63J-221X	MG R	220Ω 1/16W J	
	R3375-77	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	R3381	QRE121J-394Y	C R	390kΩ 1/2W J	
	R3391	NRSA63J-152X	MG R	1.5kΩ 1/16W J	
	R3392	NRSA63J-392X	MG R	3.9kΩ 1/16W J	
	R3393-95	NRSA63J-102X	MG R	1kΩ 1/16W J	
CAPACITOR					
	C3354-55	NDC31HJ-331X	C CAP.	330pF 50V J	
	C3356	NDC31HJ-391X	C CAP.	390pF 50V J	
	C3357	QETN1CM-107Z	E CAP.	100μF 16V M	
	C3382	QCZ0121-102	C CAP.	1000pF 3000V Z	
	C3391	QETN1AM-227Z	E CAP.	220F 10V M	
	C3392	NDC31HJ-101X	C CAP.	100pF 50V J	
COIL					
	L3381	QQL244K-101Z	PEAKING COIL	100μH K	
DIODE					
	D3391	1SS133-T2	SI.DIODE		
TRANSISTOR					
	Q3351-53	2SC4544-LB	SI.TRANSISTOR		
	Q3391	2SA933AS/QR/-T	SI.TRANSISTOR		
OTHERS					
⚠	SK3351	QNZ0464-001	C.R.T.SOCKET		

# PRINTED WIRING BOARD PARTS LIST (AV-32260/G)

## MAIN PW BOARD ASS'Y (SAC-1529A-M2)

△	Symbol No.	Part No.	Part Name	Description	Local	△	Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>						<b>RESISTOR</b>					
	R1001	NRSA63J-473X	MG R	47kΩ	1/16W J		R1522	NRSA63J-561X	MG R	560Ω	1/16W J
	R1002	NRSA63J-102X	MG R	1kΩ	1/16W J		R1523	QRJ146J-333X	C R	33kΩ	1/4W J
	R1003-04	NRSA63J-0R0X	MG R	0.0Ω	1/16W J	△	R1525	QRZ9011-470	F R	47Ω	1/2W J
	R1011	NRSA63J-820X	MG R	82Ω	1/16W J		R1526	QRE121J-272Y	C R	2.7kΩ	1/2W J
	R1012	NRSA63J-182X	MG R	1.8kΩ	1/16W J		R1527	QRE121J-154Y	C R	150kΩ	1/2W J
	R1013	NRSA63J-562X	MG R	5.6kΩ	1/16W J		R1528	QRE121J-184Y	C R	180kΩ	1/2W J
	R1014	QRE121J-101Y	C R	100Ω	1/2W J		R1529	NRSA63J-331X	MG R	330Ω	1/16W J
	R1015	NRSA63J-180X	MG R	18Ω	1/16W J	△	R1531	QRJ146J-391X	C R	390Ω	1/4W J
	R1016	NRSA63J-270X	MG R	27Ω	1/16W J		R1532	NRSA63J-273X	MG R	27kΩ	1/16W J
	R1018	NRSA63J-104X	MG R	100kΩ	1/16W J		R1533-34	NRSA63J-123X	MG R	12kΩ	1/16W J
	R1020	NRSA63J-332X	MG R	3.3kΩ	1/16W J	△	R1535	NRVA02D-242X	MG R	2.4kΩ	1/10W±0.5%
	R1021	NRSA63J-123X	MG R	12kΩ	1/16W J	△	R1537	NRZ0032-7151X	MF R	7.15kΩ	
	R1022	NRSA63J-151X	MG R	150Ω	1/16W J		R1538	NRSA63J-333X	MG R	33kΩ	1/16W J
	R1023	NRSA63J-101X	MG R	100Ω	1/16W J		R1543	QRE121J-122Y	C R	1.2kΩ	1/2W J
	R1024	NRSA63J-102X	MG R	1kΩ	1/16W J		R1544	QRE121J-392Y	C R	3.9kΩ	1/2W J
	R1025	NRSA63J-561X	MG R	560Ω	1/16W J		R1545	QRE121J-822Y	C R	8.2kΩ	1/2W J
	R1026	NRSA63J-331X	MG R	330Ω	1/16W J		R1546	NRSA63J-331X	MG R	330Ω	1/16W J
	R1028	NRSA63J-821X	MG R	820Ω	1/16W J		R1547	NRSA63J-104X	MG R	100kΩ	1/16W J
	R1038	NRSA63J-272X	MG R	2.7kΩ	1/16W J		R1548	QRE121J-152Y	C R	1.5kΩ	1/2W J
	R1039-40	NRSA63J-0R0X	MG R	0.0Ω	1/16W J		R1553	QRL039J-180	OM R	18Ω	3W J
	R1041	NRSA63J-272X	MG R	2.7kΩ	1/16W J		R1601-03	NRSA63J-750X	MG R	75Ω	1/16W J
	R1042-43	NRSA63J-102X	MG R	1kΩ	1/16W J		R1610-12	NRSA63J-221X	MG R	220Ω	1/16W J
	R1045-46	NRSA63J-0R0X	MG R	0.0Ω	1/16W J		R1700-02	NRSA63J-102X	MG R	1kΩ	1/16W J
	R1047	NRSA63J-153X	MG R	15kΩ	1/16W J		R1704-05	NRSA63J-472X	MG R	4.7kΩ	1/16W J
	R1048	NRSA63J-154X	MG R	150kΩ	1/16W J		R1706-07	NRSA63J-103X	MG R	10kΩ	1/16W J
	R1101-02	NRSA63J-101X	MG R	100Ω	1/16W J		R1708-09	NRSA63J-101X	MG R	100Ω	1/16W J
	R1111	NRSA63J-105X	MG R	1MΩ	1/16W J		R1714	NRSA63J-102X	MG R	1kΩ	1/16W J
	R1131	NRSA63J-272X	MG R	2.7kΩ	1/16W J		R1715	NRSA63J-103X	MG R	10kΩ	1/16W J
	R1134	NRSA63J-562X	MG R	5.6kΩ	1/16W J		R1721-22	NRSA63J-102X	MG R	1kΩ	1/16W J
	R1135	NRSA63J-102X	MG R	1kΩ	1/16W J		R1724	NRSA63J-102X	MG R	1kΩ	1/16W J
	R1140	NRSA63J-562X	MG R	5.6kΩ	1/16W J		R1726-28	NRSA63J-102X	MG R	1kΩ	1/16W J
	R1141	NRSA63J-0R0X	MG R	0.0Ω	1/16W J		R1729	NRSA63J-223X	MG R	22kΩ	1/16W J
	R1201	NRSA63J-333X	MG R	33kΩ	1/16W J		R1731-32	NRSA63J-101X	MG R	100Ω	1/16W J
	R1231	NRSA63J-182X	MG R	1.8kΩ	1/16W J		R1733-34	NRSA63J-272X	MG R	2.7kΩ	1/16W J
	R1237	NRSA63J-392X	MG R	3.9kΩ	1/16W J		R1737	NRSA63J-222X	MG R	2.2kΩ	1/16W J
	R1238	NRSA63J-473X	MG R	47kΩ	1/16W J		R1738	NRSA63J-102X	MG R	1kΩ	1/16W J
	R1241	NRSA63J-332X	MG R	3.3kΩ	1/16W J		R1739	NRSA63J-272X	MG R	2.7kΩ	1/16W J
	R1243	NRSA63J-152X	MG R	1.5kΩ	1/16W J		R1740	NRSA63J-103X	MG R	10kΩ	1/16W J
	R1281	NRSA63J-182X	MG R	1.8kΩ	1/16W J		R1741	NRSA63J-0R0X	MG R	0.0Ω	1/16W J
	R1282	NRSA63J-392X	MG R	3.9kΩ	1/16W J		R1742-43	NRSA63J-103X	MG R	10kΩ	1/16W J
	R1283	NRSA63J-681X	MG R	680Ω	1/16W J		R1748	NRSA63J-103X	MG R	10kΩ	1/16W J
	R1286	NRSA63J-472X	MG R	4.7kΩ	1/16W J		R1749-51	NRSA63J-222X	MG R	2.2kΩ	1/16W J
	R1287	NRSA63J-101X	MG R	100Ω	1/16W J		R1752	NRSA63J-102X	MG R	1kΩ	1/16W J
	R1288	NRSA02J-471X	MG R	470Ω	1/10W J		R1753	NRSA63J-0R0X	MG R	0.0Ω	1/16W J
	R1289	NRSA63J-154X	MG R	150kΩ	1/16W J		R1754	NRSA63J-102X	MG R	1kΩ	1/16W J
	R1290	NRSA02J-561X	MG R	560Ω	1/10W J		R1755	NRSA63J-153X	MG R	15kΩ	1/16W J
	R1291	NRSA63J-103X	MG R	10kΩ	1/16W J		R1756	NRSA63J-103X	MG R	10kΩ	1/16W J
	R1292	NRSA63J-123X	MG R	12kΩ	1/16W J		R1764-68	NRSA63J-221X	MG R	220Ω	1/16W J
	R1301-03	NRSA63J-222X	MG R	2.2kΩ	1/16W J		R1769-70	NRSA63J-682X	MG R	6.8kΩ	1/16W J
	R1304-06	NRSA63J-101X	MG R	100Ω	1/16W J		R1772	NRSA63J-103X	MG R	10kΩ	1/16W J
	R1354-55	NRSA63J-0R0X	MG R	0.0Ω	1/16W J		R1774	NRSA63J-682X	MG R	6.8kΩ	1/16W J
	R1356	NRSA63J-123X	MG R	12kΩ	1/16W J		R1775	NRSA63J-473X	MG R	47kΩ	1/16W J
	R1359	NRSA63J-103X	MG R	10kΩ	1/16W J		R1776	NRSA63J-272X	MG R	2.7kΩ	1/16W J
	R1360	NRSA63J-0R0X	MG R	0.0Ω	1/16W J		R1777	NRSA63J-103X	MG R	10kΩ	1/16W J
	R1401	NRSA63J-822X	MG R	8.2kΩ	1/16W J		R1793-95	NRSA63J-331X	MG R	330Ω	1/16W J
	R1403	QRX01GJ-1R0	MF R	1.0Ω	1W J		R1798-99	NRSA63J-103X	MG R	10kΩ	1/16W J
	R1405	NRSA63J-103X	MG R	10kΩ	1/16W J		R1800	NRSA63J-103X	MG R	10kΩ	1/16W J
	R1407	NRSA02J-0R0X	MG R	0.0Ω	1/10W J		R1806	NRSA63J-102X	MG R	1kΩ	1/16W J
	R1411-12	NRSA63J-103X	MG R	10kΩ	1/16W J		R1807	NRSA63J-222X	MG R	2.2kΩ	1/16W J
	R1414	QRL029J-221	OM R	220Ω	2W J		R1810	NRSA63J-0R0X	MG R	0.0Ω	1/16W J
	R1431	QRE121J-272Y	C R	2.7kΩ	1/2W J		R1811	NRSA63J-473X	MG R	47kΩ	1/16W J
	R1432	NRSA63J-104X	MG R	100kΩ	1/16W J		R1812	NRSA63J-102X	MG R	1kΩ	1/16W J
	R1433	NRSA63J-473X	MG R	47kΩ	1/16W J		R1814	NRSA63J-104X	MG R	100kΩ	1/16W J
	R1434	NRSA63J-822X	MG R	8.2kΩ	1/16W J		R1815	NRSA63J-154X	MG R	150kΩ	1/16W J
	R1435	NRSA63J-103X	MG R	10kΩ	1/16W J		R1816	NRSA63J-0R0X	MG R	0.0Ω	1/16W J
	R1501	NRSA63J-0R0X	MG R	0.0Ω	1/16W J		R1817	NRSA63J-104X	MG R	100kΩ	1/16W J
	R1502	NRSA63J-271X	MG R	270Ω	1/16W J		R1818	NRSA63J-0R0X	MG R	0.0Ω	1/16W J
	R1503	QRE121J-103Y	C R	10kΩ	1/2W J		R1821	NRSA63J-104X	MG R	100kΩ	1/16W J
	R1504	QRL039J-102	OM R	1kΩ	3W J		R1824	NRSA63J-103X	MG R	10kΩ	1/16W J
	R1505	QRL039J-122	OM R	1.2kΩ	3W J		R1827	NRSA63J-102X	MG R	1kΩ	1/16W J
	R1511	QRE121J-220Y	C R	22Ω	1/2W J	△	R1857	QRL029J-270	OM R	27Ω	2W J
	R1512	QRE121J-681Y	C R	680Ω	1/2W J	△	R1858	QRG01GJ-270	OM R	27Ω	1W J

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R1860	NRSA63J-562X	MG R	5.6kΩ 1/16W J	
△ R1901	QRF074K-R47	UNF R	0.47Ω 7W K	
△ R1909	QRG01GJ-470	OM R	47Ω 1W J	
R1911	QRE121J-223Y	C R	22kΩ 1/2W J	
R1912-13	QRT029J-R22	MF R	0.22Ω 2W J	
R1914	QRK126J-681X	C R	680Ω 1/2W J	
R1915	QRE121J-270Y	C R	27Ω 1/2W J	
R1917	QRK126J-332X	C R	3.3kΩ 1/2W J	
R1918	QRE121J-222Y	C R	2.2kΩ 1/2W J	
R1919	QRE121J-684Y	C R	680kΩ 1/2W J	
R1924	QRE121J-222Y	C R	2.2kΩ 1/2W J	
R1930	QRE121J-223Y	C R	22kΩ 1/2W J	
R1939	QRT039J-2R2	MF R	2.2Ω 3W J	
R1940	QRE121J-181Y	C R	180Ω 1/2W J	
R1941	QRL029J-183	OM R	18kΩ 2W J	
R1943	NRSA63J-104X	MG R	100kΩ 1/16W J	
R1944	NRSA63J-122X	MG R	1.2kΩ 1/16W J	
R1951	NRSA63J-473X	MG R	47kΩ 1/16W J	
R1952	NRSA63J-102X	MG R	1kΩ 1/16W J	
R1953	QRE121J-151Y	C R	150Ω 1/2W J	
R1973	QRE121J-272Y	C R	2.7kΩ 1/2W J	
R1975	QRE121J-223Y	C R	22kΩ 1/2W J	
R1977	QRE121J-473Y	C R	47kΩ 1/2W J	
R1978	NRSA63J-333X	MG R	33kΩ 1/16W J	
R1979-80	QRT029J-1R2	MF R	1.2Ω 2W J	
<b>CAPACITOR</b>				
C1001	QETN1HM-475Z	E CAP.	4.7μF 50V M	
C1002	QETN1HM-106Z	E CAP.	10μF 50V M	
C1003	QETN1CM-108Z	E CAP.	1000pF 16V M	
C1011-12	NCB31HK-103X	C CAP.	0.01μF 50V K	
C1014	QETN1CM-107Z	E CAP.	100μF 16V M	
C1015-16	NCB31HK-103X	C CAP.	0.01μF 50V K	
C1021	QFV71HJ-824Z	MF CAP.	0.82μF 50V J	
C1023	QETN1CM-107Z	E CAP.	100μF 16V M	
C1024	NCB31HK-103X	C CAP.	0.01μF 50V K	
C1025	NCB31HK-102X	C CAP.	1000pF 50V K	
C1026	QETN1HM-474Z	E CAP.	0.47μF 50V M	
C1027	NCB21HK-104X	C CAP.	0.1μF 50V K	
C1028	QETN1HM-106Z	E CAP.	10μF 50V M	
C1030	NCB31HK-103X	C CAP.	0.01μF 50V K	
C1034	NCB31HK-103X	C CAP.	0.01μF 50V K	
C1036	QETN1AM-477Z	E CAP.	470pF 10V M	
C1037	NCB31HK-103X	C CAP.	0.01μF 50V K	
C1038	QETN1CM-107Z	E CAP.	100μF 16V M	
C1041-42	QETN1HM-106Z	E CAP.	10μF 50V M	
C1043-44	NDC31HJ-470X	C CAP.	47pF 50V J	
C1045	QETN1HM-106Z	E CAP.	10μF 50V M	
C1046	NCB31HK-103X	C CAP.	0.01μF 50V K	
C1047	NDC21HJ-330X	C CAP.	33pF 50V J	
C1048	NCB31HK-103X	C CAP.	0.01μF 50V K	
C1111	QETN0JM-228Z	E CAP.	2200μF 6.3V M	
C1112	NCB31HK-103X	C CAP.	0.01μF 50V K	
C1113	QETN1HM-474Z	E CAP.	0.47μF 50V M	
C1114	QETN1HM-105Z	E CAP.	1μF 50V M	
C1115	QFV71HJ-104Z	MF CAP.	0.1μF 50V J	
C1116	NCB21HK-104X	C CAP.	0.1μF 50V K	
C1131	NDC31HJ-470X	C CAP.	47pF 50V J	
C1136	QENC1CM-106Z	BP E CAP.	10μF 16V M	
C1151	NCB31HK-103X	C CAP.	0.01μF 50V K	
C1152	QENC1HM-105Z	BP E CAP.	1μF 50V M	
C1201	NDC31HJ-100X	C CAP.	10pF 50V J	
C1202	QETN1HM-224Z	E CAP.	0.22μF 50V M	
C1203	NCB31HK-222X	C CAP.	2200pF 50V K	
C1233	NDC31HJ-560X	C CAP.	56pF 50V J	
C1237	NCB31HK-103X	C CAP.	0.01μF 50V K	
C1281	QFV71HJ-474Z	MF CAP.	0.47μF 50V J	
C1282	QETN1CM-227Z	E CAP.	220μF 16V M	
C1283	NCB31HK-103X	C CAP.	0.01μF 50V K	
C1284	QETN1HM-225Z	E CAP.	2.2μF 50V M	
C1285	NCB31HK-103X	C CAP.	0.01μF 50V K	

△ Symbol No.	Part No.	Part Name	Description	Local
<b>CAPACITOR</b>				
C1286	QETN1HM-106Z	E CAP.	10μF 50V M	
C1287	QETN1CM-107Z	E CAP.	100μF 16V M	
C1288	NCB31HK-103X	C CAP.	0.01μF 50V K	
C1352	QETN1CM-336Z	E CAP.	33μF 16V M	
C1354	QFV71HJ-154Z	MF CAP.	0.15μF 50V J	
C1391	QETN1CM-107Z	E CAP.	100μF 16V M	
C1392	NCB31HK-103X	C CAP.	0.01μF 50V K	
C1393-95	NCB21HK-104X	C CAP.	0.1μF 50V K	
C1401	NDC21HJ-152X	C CAP.	1500pF 50V J	
C1403	NCB21HK-273X	C CAP.	0.027μF 50V K	
C1404	QETN1VM-107Z	E CAP.	100μF 35V M	
C1405	QCS32HJ-100Z	C CAP.	10pF 500V J	
C1407	QFLC2AK-563Z	M CAP.	0.056μF 100V K	
C1410	QFLC2AJ-104Z	M CAP.	0.1μF 100V J	
C1411	QETN1HM-105Z	E CAP.	1μF 50V M	
C1415	NCB21HK-104X	C CAP.	0.1μF 50V K	
C1421	QEHQ1VM-108	E CAP.	1000μF 35V M	
C1431	QETN1HM-105Z	E CAP.	1μF 50V M	
C1432	QETN1EM-476Z	E CAP.	47μF 25V M	
C1501	QCB32HK-151Z	C CAP.	150pF 500V K	
C1502	QCB32HK-331Z	C CAP.	330pF 500V K	
C1503	QEHR2CM-105Z	E CAP.	1μF 160V M	
C1504	QEZ0203-107	E CAP.	100μF 160V M	
C1507-08	QEM61HK-475Z	E CAP.	4.7μF 50V K	
△ C1510	QFZ0196-602	MPP CAP.	6000pF 1.5kVH ±3%	
△ C1513	QFZ0198-133	MPP CAP.	0.013μF 1.5kVH ±3%	
△ C1514	QFP32GJ-183	PP CAP.	0.018μF 400V J	
△ C1515	QFZ0197-754	MPP CAP.	0.75μF 250V J	
C1516	QCB32HK-561Z	C CAP.	560pF 500V K	
C1521	QETN2EM-106Z	E CAP.	10μF 250V M	
C1523	QEHR1EM-108Z	E CAP.	1000μF 25V M	
C1524	QETN1EM-108Z	E CAP.	1000μF 25V M	
C1525	QETN1VM-107Z	E CAP.	100μF 35V M	
C1526	QFV21HJ-824Z	MF CAP.	0.82μF 50V J	
C1527	QFLC2AJ-103Z	M CAP.	0.01μF 100V J	
C1531	QCB32HK-102Z	C CAP.	1000pF 500V K	
C1533	QETN1HM-106Z	E CAP.	10μF 50V M	
C1601-03	QETN1EM-476Z	E CAP.	47μF 25V M	
C1609-11	QFV71HJ-104Z	MF CAP.	0.1μF 50V J	
C1612	QETN1HM-105Z	E CAP.	1μF 50V M	
C1700	NCB31HK-102X	C CAP.	1000pF 50V K	
C1703	NDC31HJ-181X	C CAP.	180pF 50V J	
C1706	QETN1HM-105Z	E CAP.	1μF 50V M	
C1707	QETN1CM-107Z	E CAP.	100μF 16V M	
C1710	NCB21EK-683X	C CAP.	0.068μF 25V K	
C1721	NCB31HK-103X	C CAP.	0.01μF 50V K	
C1722-23	NDC31HJ-390X	C CAP.	39pF 50V J	
C1724	NDC31HJ-471X	C CAP.	470pF 50V J	
C1726	NDC21HJ-561X	C CAP.	560pF 50V J	
C1800	QETN1CM-107Z	E CAP.	100μF 16V M	
C1801	NCB21HK-104X	C CAP.	0.1μF 50V K	
C1802	QETN1CM-107Z	E CAP.	100μF 16V M	
C1803	QETN1HM-106Z	E CAP.	10μF 50V M	
C1804	NDC31HJ-102X	C CAP.	1000pF 50V J	
C1805	NCB31HK-153X	C CAP.	0.015μF 50V K	
C1806-07	QETN1HM-106Z	E CAP.	10μF 50V M	
C1810	QETN1HM-474Z	E CAP.	0.47μF 50V M	
C1811	QETN1HM-105Z	E CAP.	1μF 50V M	
C1813	NCB31HK-102X	C CAP.	1000pF 50V K	
C1816	NCB31HK-153X	C CAP.	0.015μF 50V K	
C1853-54	QETN1CM-227Z	E CAP.	220μF 16V M	
C1856	QETN1CM-227Z	E CAP.	220μF 16V M	
C1857	QETN1CM-477Z	E CAP.	470μF 16V M	
△ C1904-06	QCZ9054-102	C CAP.	1000pF 250V Z	
△ C1907	QEZ0169-477	E CAP.	470μF 200V M	
△ C1908	QCZ9054-102	C CAP.	1000pF 250V Z	
C1912	QCZ0340-222	C CAP.	2200pF 50V J	
C1913	QFLC1HJ-471Z	M CAP.	470pF 50V J	
C1914	QETN1HM-107Z	E CAP.	100μF 50V M	
C1916	NDC31HJ-331X	C CAP.	330pF 50V J	
C1917	NCB21HK-122X	C CAP.	1200pF 50V K	
C1918	NCB21HK-104X	C CAP.	0.1μF 50V K	



△ Symbol No.	Part No.	Part Name	Description	Local
<b>CAPACITOR</b>				
C1919	QFP32GJ-103	PP CAP.	0.01μF 400V	J
C1925	NRSA63J-0R0X	MG R	0.0Ω 1/16W	J
C1931	QE20203-107	E CAP.	100μF 160V	M
C1932	QETN1CM-108Z	E CAP.	1000μF 16V	M
C1933	QETM1EM-228	E CAP.	2200μF 25V	M
C1935	QETN1EM-108Z	E CAP.	1000μF 25V	M
C1937	QCZ0340-102	C CAP.	1000pF	
C1938	QETM1EM-228	E CAP.	2200μF 25V	M
C1939	QCB32HK-152Z	C CAP.	1500pF 500V	K
C1941	QCB32HK-102Z	C CAP.	1000pF 500V	K
C1942	QEHR1HM-105Z	E CAP.	1μF 50V	M
C1943	QETN1CM-108Z	E CAP.	1000μF 16V	M
C1948	QETN1EM-476Z	E CAP.	47μF 25V	M
C1951	QETN1CM-477Z	E CAP.	470μF 16V	M
C1971	QETN1CM-107Z	E CAP.	100μF 16V	M
C1972	QETN1EM-476Z	E CAP.	47μF 25V	M
C1973	QETN1HM-106Z	E CAP.	10μF 50V	M
△ C1998-99	QCZ9074-103	C CAP.	0.01μF 125V	M

<b>TRANSFORMER</b>				
T1501	CE42034-002	H.DRIVE TRANSF.		
△ T1502	QQH0092-001	H.V.TRANSF.		
△ T1921	QQS0098-001	SWITCH.TRANSF.		
△ T1951	QQT0315-001	POWER TRANSF.		

<b>COIL</b>				
△ L1001	QQL244K-560Z	PEAKING COIL	56μH	K
L1012	QQLZ014-R39	PEAKING COIL	0.39μH	
L1021	QRN143J-0R0X	C R	0.0Ω 1/4W	J
L1022	QQL244K-220Z	PEAKING COIL	22μH	K
L1027	QRN143J-0R0X	C R	0.0Ω 1/4W	J
L1041	QRN143J-0R0X	C R	0.0Ω 1/4W	J
L1042	QQL244K-220Z	PEAKING COIL	22μH	K
L1101	QQL244K-470Z	COIL	47μH	K
L1232	QQL244K-560Z	PEAKING COIL	56μH	K
△ L1511	QQR1027-003	LINE FILTER		
L1512	QQLZ027-821	CHOKE COIL	820μH	
△ L1521	QQLZ026-410	HEATER CHOKE	41μH	
L1700	QQL244K-4R7Z	COIL	4.7μH	K
L1810	QQL244J-100Z	COIL	10μH	J
L1931	QQL26AK-470Z	COIL	47μH	K
L1933	QQL26AK-470Z	COIL	47μH	K
L1937	QQL26AK-470Z	COIL	47μH	K

<b>DIODE</b>				
D1101-02	MTZJ8.2C-T2	ZENER DIODE		
D1305-10	1SS133-T2	SI.DIODE		
D1352	MTZJ9.1C-T2	ZENER DIODE		
D1353	1SS133-T2	SI.DIODE		
D1401	1SR35-400A-T2	SI.DIODE		
D1431	1SR35-400A-T2	SI.DIODE		
D1432	1SS133-T2	SI.DIODE		
D1501	RH3G-F1	SI.DIODE		
D1502	RU3AM-LFC4	SI.DIODE		
D1521	RH1S-T3	SI.DIODE		
D1523	RGP10J-5025-T3	SI.DIODE		
D1524	RGP10J-5025-T3	SI.DIODE		
D1525-26	1SS81-T5	SI.DIODE		
D1527	1SR124-400A-T2	SI.DIODE		
D1529	MTZJ5.1C-T2	ZENER DIODE		
△ D1531	MA4068NZ1/-T2	ZENER DIODE		
D1535	1SS133-T2	SI.DIODE		
D1537	1SR35-400A-T2	SI.DIODE		
D1601	MTZJ9.1C-T2	ZENER DIODE		
D1603	MTZJ9.1C-T2	ZENER DIODE		
D1606	MTZJ9.1C-T2	ZENER DIODE		
D1701	1SS133-T2	SI.DIODE		
D1706-10	MTZJ8.2C-T2	ZENER DIODE		
D1721-22	1SS133-T2	SI.DIODE		

<b>DIODE</b>				
D1723-24	MTZJ5.6B-T2	ZENER DIODE		
D1800	1SS81-T2	SI.DIODE		
D1801	1SS133-T2	SI.DIODE		
D1810	MTZJ8.2C-T2	ZENER DIODE		
D1811	1SS133-T2	SI.DIODE		
△ D1901	D3SBA60	DIODE BRIDGE		
D1910	MA700A-T2	SI.DIODE		
△ D1911	RGP10J-5025-T3	SI.DIODE		
△ D1912	RGP10J-5025-T3	SI.DIODE		
△ D1913	RGP10J-5025-T3	SI.DIODE		
D1914	1SS133-T2	SI.DIODE		
D1915	SARS01-T2	SI.DIODE		
D1917	MTZJ30A-T2	ZENER DIODE		
D1918	MTZJ5.1C-T2	ZENER DIODE		
D1920	1SS133-T2	SI.DIODE		
D1931	RU30A-F1	SI.DIODE		
D1933	RU3YX-LFC4	SI.DIODE		
D1935	RU3YX-LFC4	SI.DIODE		
D1937	RGP10J-5025-T3	SI.DIODE		
D1941	MTZJ33A-T2	ZENER DIODE		
D1945	1SS133-T2	SI.DIODE		
D1952-53	1SS133-T2	SI.DIODE		
D1954-57	1SR35-400A-T2	SI.DIODE		
D1972	MTZJ15C-T2	ZENER DIODE		
D1973	1SS133-T2	SI.DIODE		

<b>TRANSISTOR</b>				
Q1011	2SC5083/L-P/-T	SI.TRANSISTOR		
Q1021	2SC2412K/QR/-X	SI.TRANSISTOR		
Q1024	2SC2412K/QR/-X	SI.TRANSISTOR		
Q1025	2SA1037AK/QR/-X	SI.TRANSISTOR		
Q1041	2SA1037AK/QR/-X	SI.TRANSISTOR		
Q1131	2SC2412K/QR/-X	SI.TRANSISTOR		
Q1232-33	2SC2412K/QR/-X	SI.TRANSISTOR		
Q1352	2SC2412K/QR/-X	SI.TRANSISTOR		
Q1431	2SC2412K/QR/-X	SI.TRANSISTOR		
Q1501	2SC4212/Z1/	SI.TRANSISTOR		
△ Q1511	2SD2559-LB	SI.TRANSISTOR		
Q1531	2SC2785/JH/-T	SI.TRANSISTOR		
Q1532	2SA1037AK/QR/-X	SI.TRANSISTOR		
Q1541-42	2SA1037AK/QR/-X	SI.TRANSISTOR		
△ Q1543	2SD1408/OY/-LB	SI.TRANSISTOR		
Q1700	2SC2412K/QR/-X	SI.TRANSISTOR		
Q1701	2SA1037AK/QR/-X	SI.TRANSISTOR		
Q1703	2SA1037AK/QR/-X	SI.TRANSISTOR		
Q1706	2SC2412K/QR/-X	SI.TRANSISTOR		
Q1711	DTC124EKA-X	DIGI.TRANSISTOR		
Q1810	DTC144EKA-X	DIGI.TRANSISTOR		
Q1941	2SC2412K/QR/-X	SI.TRANSISTOR		
Q1951	2SD1383K/AB/-X	SI.TRANSISTOR		
Q1971	2SA1208/ST/Z1-T	SI.TRANSISTOR		

<b>IC</b>				
IC1101	TB1253AN	I.C.(M)		
△ IC1401	LA7841	I.C.(MONO-ANA)		
IC1701	MN1876478JL1	I.C.(MICRO-COMP)		
IC1702	AT24C04-32D502	I.C.(MEMORY-OTH)	(SERVICE)	
IC1703	MM1437AF-X	I.C.(MONO-ANA)		
IC1852	AN7809F	I.C.(MONO-ANA)		
IC1853	AN7805F	I.C.(MONO-ANA)		
IC1911	STR-G6624/F8	I.C.(HYBRID)		
△ IC1921	SE135N	I.C.(HYBRID)		

<b>OTHERS</b>				
CF1001	QAX0349-001	CERAMIC FILTER		
CF1021	QAX0639-001Z	CERAMIC FILTER		
CF1041	QAX0642-001Z	CERAMIC FILTER		
△ CP1932	ICP-N75-Y	I.C.PROTECT		
△ CP1933	ICP-N75-Y	I.C.PROTECT		
△ CP1936	ICP-N75-Y	I.C.PROTECT		

△ Symbol No.	Part No.	Part Name	Description	Local
OTHERS				
△ F1905	QMFZ034-5R0Z-J1	FUSE		
△ FR1521	QRK126J-150X	C R	15Ω 1/2W J	
△ FR1523-24	QRX029J-3R3	MFR	3.3Ω 2W J	
△ FR1525	QRZ9017-4R7	F R	4.7Ω 1/4W J	
J1601	QNN0349-002	PIN JACK		
J1810	QNS0001-001	JACK		
K1401	QQR0621-002Z	BEADS CORE		
K1912	QQR0582-001Z	BEADS CORE		
K1916-17	QQR0582-001Z	BEADS CORE		
K1931-33	QQR0582-001Z	BEADS CORE		
K1935	QQR0582-001Z	BEADS CORE		
K1937	QQR0582-001Z	BEADS CORE		
K1940	QQR0582-001Z	BEADS CORE		
K1941	QQR0621-002Z	BEADS CORE		
LC1601-03	NQR0169-001X	EMI FILTER		
△ PC1921	TLP421F/D4-GR/	I.C.(PH.COUPLER)		
△ RY1941	QSK0120-001	RELAY		
△ RY1951	QSK0113-001	RELAY		
SF1011	QAX0324-002	SAW FILTER		
△ TH1901	CEKP007-002	P.THERMISTOR		
△ TU1001	QAU0234-001	TUNER		
X1201	CE40668-001Z	CRYSTAL		
X1700	QAX0307-001	CER.RESONATOR		

CRT SOCKET PW BOARD ASS'Y (SAC-3508A-M2)

△ Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R3354-56	NRSA63J-221X	MG R	220Ω 1/16W J	
R3357-59	NRSA63J-101X	MG R	100Ω 1/16W J	
R3360-62	QRZ0111-152	C R	1.5kΩ 1/2W K	
R3363-65	QRG029J-103	OM R	10kΩ 2W J	
R3366-68	NRSA63J-182X	MG R	1.8kΩ 1/16W J	
R3372-74	NRSA63J-221X	MG R	220Ω 1/16W J	
R3375-77	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R3381	QRE121J-394Y	C R	390kΩ 1/2W J	
R3391	NRSA63J-152X	MG R	1.5kΩ 1/16W J	
R3392	NRSA63J-392X	MG R	3.9kΩ 1/16W J	
R3393-95	NRSA63J-102X	MG R	1kΩ 1/16W J	
CAPACITOR				
C3354-55	NDC31HJ-331X	C CAP.	330pF 50V J	
C3356	NDC31HJ-391X	C CAP.	390pF 50V J	
C3357	QETN1CM-107Z	E CAP.	100μF 16V M	
C3382	QCZ0121-102	C CAP.	1000pF 3000V Z	
C3391	QETN1AM-227Z	E CAP.	220μF 10V M	
C3392	NDC31HJ-101X	C CAP.	100pF 50V J	
COIL				
L3381	QQL244K-101Z	PEAKING COIL	100μH K	
DIODE				
D3391	1SS133-T2	SI.DIODE		
TRANSISTOR				
Q3351-53	2SC4544-LB	SI.TRANSISTOR		
Q3391	2SA933AS/QR-/T	SI.TRANSISTOR		
OTHERS				
△ SK3351	QNZ0464-001	C.R.T.SOCKET		

FRONT CONTROL PW BOARD ASS'Y (SAC-8505A-M2)

△ Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R8702	NRSA63J-472X	MG R	4.7kΩ 1/16W J	
R8703	NRSA63J-153X	MG R	15kΩ 1/16W J	
R8705	NRSA63J-472X	MG R	4.7kΩ 1/16W J	
R8706	NRSA63J-153X	MG R	15kΩ 1/16W J	
R8707	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
R8708	NRSA63J-681X	MG R	680Ω 1/16W J	
R8709	NRSA63J-561X	MG R	560Ω 1/16W J	
CAPACITOR				
C8701	QETN1EM-476Z	E CAP.	47μF 25V M	
DIODE				
D8701	GL2PR6	L.E.D.(RED)		
TRANSISTOR				
Q8701-02	DTA124EKA-X	DIGI.TRANSISTOR		
IC				
IC8701	PIC-28143SY	IFR DETECT UNIT		
OTHERS				
S8701	CM46978-A01-H	L.E.D.HOLDER		
S8702	QSW0707-001Z	TACT SWITCH	POWER	
S8703	QSW0707-001Z	TACT SWITCH	MENU	
S8704	QSW0707-001Z	TACT SWITCH	CH-	
S8705	QSW0707-001Z	TACT SWITCH	CH+	
S8706	QSW0707-001Z	TACT SWITCH	VOL-	
			VOL+	
FRONT AV INPUT PW BOARD ASS'Y (SAC-8603A-M2)				
△ Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R8401	NRSA63J-750X	MG R	75Ω 1/16W J	
R8402-03	NRSA63J-224X	MG R	220kΩ 1/16W J	
CAPACITOR				
C8401	QETN1HM-474Z	E CAP.	0.47μF 50V M	
C8402-03	QETN1HM-105Z	E CAP.	1μF 50V M	
OTHERS				
J8401	QNN0417-001	PIN JACK		
LC8401	QQR1199-001	FILTER		

## LF PW BOARD ASS'Y (SAC-9502A-M2)

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R9997	QRE121J-5R6Y	C R	5.6Ω 1/2W J	
△ R9998	QRZ9041-275	C R	2.7MΩ 1/2W K	
<b>CAPACITOR</b>				
△ C9901	QFZ9067-104	MM CAP.	0.1μF	
△ C9902	QFZ9067-473	MM CAP.	0.047μF	
△ C9904	QCZ9052-102	C CAP.	1000pF	
<b>OTHERS</b>				
△ CN90PW	QMPD200-200-JC	POWER CORD		
△ F9901	QMF0007-5R0J1	FUSE	5A	
FC9901	CEMG002-001Z	FUSE CLIP		
△ LF9902	QQR0527-003	LINE FILTER		
△ VA9901	ERZV10V621CS	VARISTOR		

## PIP PW BOARD ASS'Y (SAC0P502A-M2)

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R0001-02	NRSA63J-103X	MG R	10kΩ 1/16W J	
R0003-04	NRSA63J-101X	MG R	100Ω 1/16W J	
R0005	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R0011	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R0121	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R0301	NRSA63J-473X	MG R	47kΩ 1/16W J	
R0303	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
R0304	NRSA63J-473X	MG R	47kΩ 1/16W J	
R0306	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
R0307-08	NRSA63J-332X	MG R	3.3kΩ 1/16W J	
R0309	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0311	NRSA63J-101X	MG R	100Ω 1/16W J	
R0313	NRSA63J-101X	MG R	100Ω 1/16W J	
R0314	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R0316	NRSA63J-331X	MG R	330Ω 1/16W J	
R0317	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R0331	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R0337	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R0343	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
<b>CAPACITOR</b>				
C0003-04	QETN1HM-106Z	E CAP.	10μF 50V M	
C0006	QETN1HM-106Z	E CAP.	10μF 50V M	
C0008	QETN1EM-476Z	E CAP.	47μF 25V M	
C0301-02	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
C0312-13	NDC31HJ-270X	C CAP.	27pF 50V J	
C0314	QETN1HM-106Z	E CAP.	10μF 50V M	
C0315	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0316-18	NCB21HK-104X	C CAP.	0.1μF 50V K	
C0319	QETN1HM-106Z	E CAP.	10μF 50V M	
C0320	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0321	QETN1HM-105Z	E CAP.	1μF 50V M	
C0322	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0323	QETN1HM-106Z	E CAP.	10μF 50V M	
C0324-25	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0326	NCB21HK-104X	C CAP.	0.1μF 50V K	
C0327	QETN1HM-225Z	E CAP.	2.2μF 50V M	
C0328	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0329	QETN1HM-225Z	E CAP.	2.2μF 50V M	
C0330	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0331	NCB21HK-104X	C CAP.	0.1μF 50V K	

△ Symbol No.	Part No.	Part Name	Description	Local
<b>COIL</b>				
L0302-04	QQL244J-6R8Z	COIL	6.8μH J	
<b>DIODE</b>				
D0301	1SS133-T2	SI.DIODE		
<b>TRANSISTOR</b>				
Q0301-03	2SC2412K/QR/-X	SI.TRANSISTOR		
<b>IC</b>				
IC0001	AN7805F	I.C.(MONO-ANA)		
IC0301	SDA9389X-X	I.C.(DIGI-MOS)		
<b>OTHERS</b>				
△ TU0001	QAU0206-001	TUNER		
X0301	QAX0521-001Z	CRYSTAL		

## AV SELECTOR PW BOARD ASS'Y (SAC0S509A-M2)

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R0081	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0082	NRSA63J-682X	MG R	6.8kΩ 1/16W J	
R0083	NRSA63J-153X	MG R	15kΩ 1/16W J	
R0084	NRSA63J-683X	MG R	68kΩ 1/16W J	
R0085	NRSA63J-332X	MG R	3.3kΩ 1/16W J	
R0086	NRSA63J-333X	MG R	33kΩ 1/16W J	
R0087	NRSA63J-153X	MG R	15kΩ 1/16W J	
R0088	NRSA63J-152X	MG R	1.5kΩ 1/16W J	
R0089	NRSA63J-562X	MG R	5.6kΩ 1/16W J	
R0090	NRSA63J-563X	MG R	56kΩ 1/16W J	
R0202	NRSA63J-101X	MG R	100Ω 1/16W J	
R0210	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R0211	NRSA63J-153X	MG R	15kΩ 1/16W J	
R0212	NRSA63J-333X	MG R	33kΩ 1/16W J	
R0213	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0214	NRSA63J-181X	MG R	180Ω 1/16W J	
R0215	NRSA63J-152X	MG R	1.5kΩ 1/16W J	
R0216	NRSA63J-182X	MG R	1.8kΩ 1/16W J	
R0217	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0218	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
R0223	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R0229	NRSA63J-473X	MG R	47kΩ 1/16W J	
R0230	NRSA63J-223X	MG R	22kΩ 1/16W J	
R0231	NRSA63J-101X	MG R	100Ω 1/16W J	
R0232	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0233	NRSA63J-272X	MG R	2.7kΩ 1/16W J	
R0234	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0235-36	NRSA63J-101X	MG R	100Ω 1/16W J	
R0238	NRSA63J-822X	MG R	8.2kΩ 1/16W J	
R0239	NRSA63J-123X	MG R	12kΩ 1/16W J	
R0241	NRSA63J-821X	MG R	820Ω 1/16W J	
R0242	NRSA63J-474X	MG R	470kΩ 1/16W J	
R0243-44	NRSA63J-103X	MG R	10kΩ 1/16W J	
R0247	NRSA63J-101X	MG R	100Ω 1/16W J	
R0251	NRSA63J-471X	MG R	470Ω 1/16W J	
R0253	NRSA63J-681X	MG R	680Ω 1/16W J	
R0254	NRSA63J-391X	MG R	390Ω 1/16W J	
R0255	NRSA63J-681X	MG R	680Ω 1/16W J	
R0258	NRSA63J-101X	MG R	100Ω 1/16W J	
R0259	NRSA63J-222X	MG R	2.2kΩ 1/16W J	

△ Symbol No.	Part No.	Part Name	Description	Local
<b>RESISTOR</b>				
R0261	NRSA63J-101X	MG R	100Ω 1/16W J	
R0262	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
R0263	NRSA63J-471X	MG R	470Ω 1/16W J	
R0265	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0269	NRSA63J-681X	MG R	680Ω 1/16W J	
R0270	NRSA63J-820X	MG R	82Ω 1/16W J	
R0301-02	NRSA63J-222X	MG R	2.2kΩ 1/16W J	
R0303-04	NRSA63J-221X	MG R	220Ω 1/16W J	
R0305-06	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R0331-34	NRSA63J-101X	MG R	100Ω 1/16W J	
R0371-74	NRSA63J-103X	MG R	10kΩ 1/16W J	
R0375-76	NRSA63J-333X	MG R	33kΩ 1/16W J	
R0377-78	NRSA63J-472X	MG R	4.7kΩ 1/16W J	
R0385	NRSA63J-223X	MG R	22kΩ 1/16W J	
R0387	NRSA63J-223X	MG R	22kΩ 1/16W J	
R0391-92	NRSA63J-221X	MG R	220Ω 1/16W J	
R0393-94	NRSA63J-823X	MG R	82kΩ 1/16W J	
R0401	NRSA63J-183X	MG R	18kΩ 1/16W J	
R0402	NRSA63J-223X	MG R	22kΩ 1/16W J	
R0458	NRSA63J-333X	MG R	33kΩ 1/16W J	
R0459	NRSA63J-183X	MG R	18kΩ 1/16W J	
R0501-02	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0504-05	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0507-08	NRSA63J-102X	MG R	1kΩ 1/16W J	
R0509	NRSA63J-221X	MG R	220Ω 1/16W J	
R0518	NRSA63J-333X	MG R	33kΩ 1/16W J	
R0519-21	NRSA63J-750X	MG R	75Ω 1/16W J	
R0522-23	NRSA63J-224X	MG R	220kΩ 1/16W J	
R0528-29	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R0532-33	NRSA63J-224X	MG R	220kΩ 1/16W J	
R0558-61	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R0566-67	NRSA63J-331X	MG R	330Ω 1/16W J	
R0571	NRSA63J-101X	MG R	100Ω 1/16W J	
R0573	NRSA63J-272X	MG R	2.7kΩ 1/16W J	
R0574	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
R0901	NRSA63J-101X	MG R	100Ω 1/16W J	
R0906	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	

**CAPACITOR**

C0081	NCB21HK-104X	C CAP.	0.1μF 50V K	
C0082	QENC1HM-475Z	BP E CAP.	4.7μF 50V M	
C0083	QENC1HM-105Z	BP E CAP.	1μF 50V M	
C0084	QETN1HM-225Z	E CAP.	2.2μF 50V M	
C0085	NCB21HK-473X	C CAP.	0.047μF 50V K	
C0086	QETN1HM-474Z	E CAP.	0.47μF 50V M	
C0087-88	NCB21HK-104X	C CAP.	0.1μF 50V K	
C0089	QETN1HM-335Z	E CAP.	3.3μF 50V M	
C0090	QETN1HM-105Z	E CAP.	1μF 50V M	
C0091	QETN1HM-106Z	E CAP.	10μF 50V M	
C0092-93	QETN1HM-105Z	E CAP.	1μF 50V M	
C0094	QETN1HM-475Z	E CAP.	4.7μF 50V M	
C0095	QETN1HM-105Z	E CAP.	1μF 50V M	
C0205	QETN1HM-476Z	E CAP.	47μF 50V M	
C0206	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0211	QENC1EM-106Z	BP E CAP.	10μF 25V M	
C0212	NDC31HJ-101X	C CAP.	100pF 50V J	
C0213	NDC31HJ-470X	C CAP.	47pF 50V J	
C0214	NDC31HJ-181X	C CAP.	180pF 50V J	
C0215	QETN1HM-474Z	E CAP.	0.47μF 50V M	
C0223	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0226	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0231-33	QETN1HM-106Z	E CAP.	10μF 50V M	
C0234	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0235	QETN1HM-106Z	E CAP.	10μF 50V M	
C0236	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0237	NCB31HK-472X	C CAP.	4700pF 50V K	
C0238-39	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0241-45	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0246	NDC31HJ-181X	C CAP.	180pF 50V J	
C0247-49	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0251	QETN1HM-476Z	E CAP.	47μF 50V M	

△ Symbol No.	Part No.	Part Name	Description	Local
<b>CAPACITOR</b>				
C0252	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0255	NDC31HJ-390X	C CAP.	39pF 50V J	
C0263	NDC31HJ-150X	C CAP.	15pF 50V J	
C0264	QENC1HM-474Z	BP E CAP.	0.47μF 50V M	
C0265	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0309-10	NCB31HK-102X	C CAP.	1000pF 50V K	
C0311-12	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
C0331	QETN1CM-107Z	E CAP.	100μF 16V M	
C0332	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0333	QETN1EM-476Z	E CAP.	47μF 25V M	
C0334	NCB21HK-273X	E CAP.	0.027μF 50V K	
C0335	QETN1HM-225Z	C CAP.	2.2μF 50V M	
C0336	NCB31HK-222X	C CAP.	2200pF 50V K	
C0337	NCB21HK-104X	C CAP.	0.1μF 50V K	
C0338	QETN1HM-225Z	E CAP.	2.2μF 50V M	
C0339	NCB31HK-222X	C CAP.	2200pF 50V K	
C0340	NCB21HK-104X	C CAP.	0.1μF 50V K	
C0343	QETN1HM-105Z	E CAP.	1μF 50V M	
C0344-45	QENC1HM-225Z	BP E CAP.	2.2μF 50V M	
C0371-72	QENC1HM-105Z	BP E CAP.	1μF 50V M	
C0373	QETN1EM-476Z	E CAP.	47μF 25V M	
C0391-92	QETN1HM-474Z	E CAP.	0.47μF 50V M	
C0401	QETN1CM-107Z	E CAP.	100μF 16V M	
C0402-03	NCF21CZ-105X	C CAP.	1μF 16V Z	
C0404	QFV71HJ-224Z	MF CAP.	0.22μF 50V J	
C0407	QETN1EM-108Z	E CAP.	1000μF 25V M	
C0410-11	QETN1EM-108Z	E CAP.	1000μF 25V M	
C0412-13	QETN1HM-105Z	E CAP.	1μF 50V M	
C0501-02	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0503	QETN1HM-226Z	E CAP.	22μF 50V M	
C0504	QETN1EM-476Z	E CAP.	47μF 25V M	
C0505	QENC1HM-474Z	BP E CAP.	0.47μF 50V M	
C0508	QETN1HM-474Z	E CAP.	0.47μF 50V M	
C0509	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0511	QETN1HM-474Z	E CAP.	0.47μF 50V M	
C0512-13	QETN1HM-105Z	E CAP.	1μF 50V M	
C0520-21	QETN1HM-105Z	E CAP.	1μF 50V M	
C0531-32	NCB31HK-103X	C CAP.	0.01μF 50V K	
C0536-39	NCB31HK-103X	C CAP.	0.01μF 50V K	

**COIL**

L0202	QQL244K-150Z	COIL	15μH	K
L0211	QQL244K-4R7Z	COIL	4.7μH	K
L0242-43	QQL244K-4R7Z	COIL	4.7μH	K
L0261	QQL244K-150Z	COIL	15μH	K

**DIODE**

D0391-92	MTZJ10C-T2	ZENER DIODE		
D0501-02	MTZJ10C-T2	ZENER DIODE		
D0504	MTZJ10C-T2	ZENER DIODE		
D0509	MTZJ10C-T2	ZENER DIODE		
D0511	MTZJ10C-T2	ZENER DIODE		
D0515-19	MTZJ10C-T2	ZENER DIODE		
D0521	MTZJ10C-T2	ZENER DIODE		

**TRANSISTOR**

Q0211-12	2SC2412K/QR/-X	SI.TRANSISTOR		
Q0218	2SC2412K/QR/-X	SI.TRANSISTOR		
Q0219	2SA1037AK/QR/-X	SI.TRANSISTOR		
Q0251	2SC2412K/QR/-X	SI.TRANSISTOR		
Q0252	2SA1037AK/QR/-X	SI.TRANSISTOR		
Q0253	2SC2412K/QR/-X	SI.TRANSISTOR		
Q0261-62	2SC2412K/QR/-X	SI.TRANSISTOR		
Q0263	2SA1037AK/QR/-X	SI.TRANSISTOR		
Q0301-02	DTC124EKA-X	DIGI.TRANSISTOR		
Q0385	DTC323TK-X	DIGI.TRANSISTOR		
Q0387	DTC323TK-X	DIGI.TRANSISTOR		
Q0453	2SC2412K/QR/-X	SI.TRANSISTOR		
Q0454	DTC124EKA-X	DIGI.TRANSISTOR		
Q0509	2SC2412K/QR/-X	SI.TRANSISTOR		

OTHERS		
J0501	QNZ0454-001	PIN JACK
J0502-03	QNN0348-001	PIN JACK

Ref.No.	Part No.	Part Name	Description	Local
	UR52EC1286A	BATTERY COVER		

DIFFERENCE PARTS LIST BETWEEN AV-32260/G, AV-32260/H AND AV-32260/M

The picture tubes used for the models AV-32260/G, AV-32260/H and AV-32260/M are difference. The electrical parts are also difference according to the PICTURE TUBE.  
In the DIFFERENCE PARTS LIST BETWEEN AV-32260/G, AV-32260/H and AV-32260/M, only difference points between these models are written. For other parts not mentioned in the list, please refer to the PARTS LIST(P47 – P53) for the AV-32260/G.

DIFFERENCE PARTS LIST

MAIN PWB

⚠	Symbol No.	Part No.			Part Name
		AV-32260/G	AV-32260/H	AV-32260/M	
⚠		SAC-1529A-M2	SAC-1530A-M2	SAC-1531A-M2	MAIN PWB
	R1404	—	QRE121J-100Y(10Ω, 1/2W,J)	←	C R
	R1776	NRSA63J-272X(2.7kΩ, 1/16W,J)	NRSA63J-123X(12kΩ, 1/16W,J)	←	C R
⚠	C1510	QFZ0196-602(6000pF,1.5kVH,±3%)	QFZ0196-502(5000pF,1.5kVH,±3%)	QFZ0196-402(4000pF,1.5kVH,±3%)	MPP CAP.
⚠	C1515	QFZ0197-754(0.75μF,250V,J)	QFZ0197-564(0.56μF,250V,J)	←	MPP CAP.
⚠	L1521	QQLZ026-410(41μH)	QQLZ026-460(46μH)	QQLZ026-540(54μH)	HEATER CHOKE
	TH1901	CEKP007-002	QRD0129-3R0	←	P. THERMISTOR

CRT SOCKET PWB

⚠	Symbol No.	Part No.			Part Name
		AV-32260/G	AV-32260/H	AV-32260/M	
		SAC-3508A-M2	SAC-3509A-M2	SAC-3510A-M2	CRT SOCKET PWB

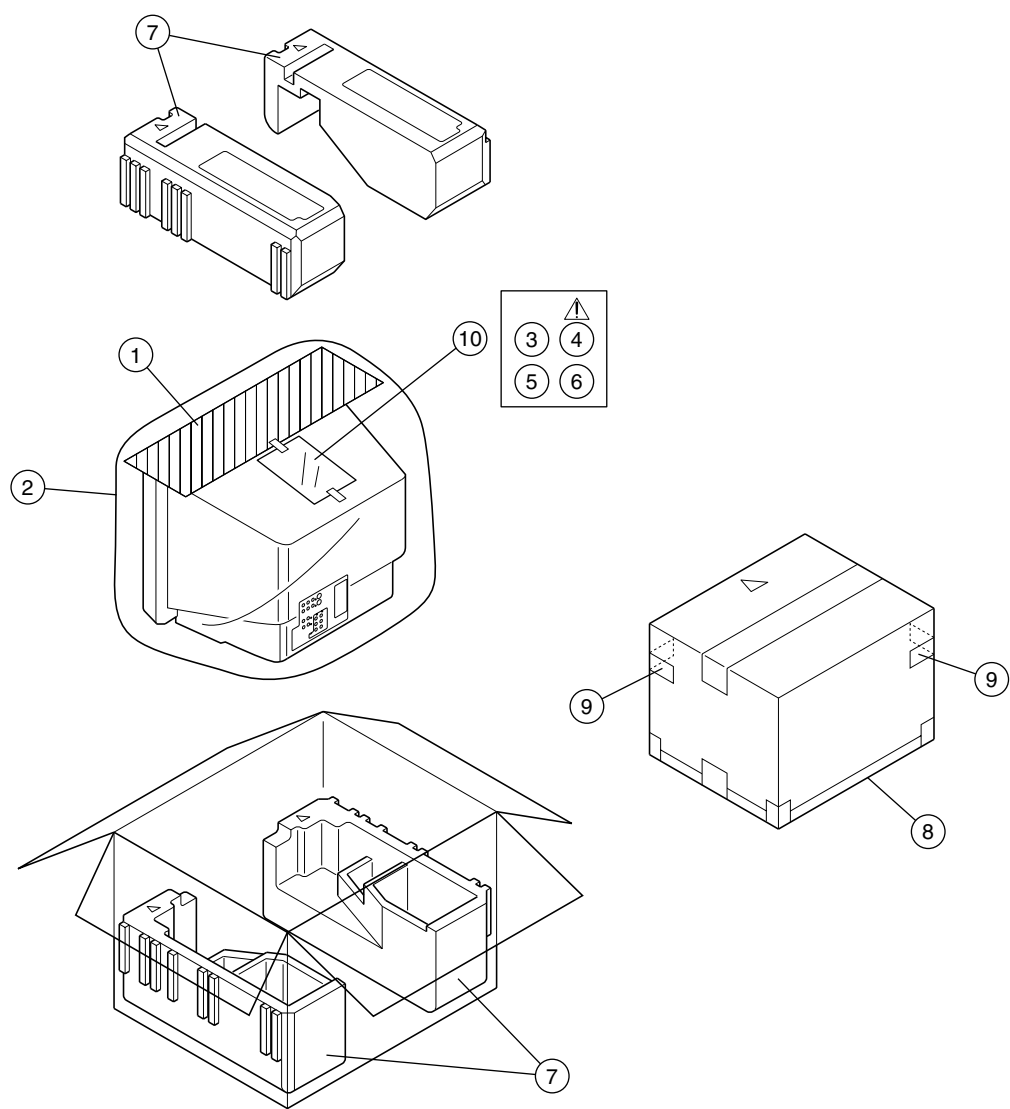
CRT SOCKET PW BOARD ASS'Y (SAC-3509A-M2)

⚠	Symbol No.	Part No.	Part Name	Description	Local
RESISTOR					
	R3354-56	NRSA63J-221X	MG R	220Ω 1/16W J	
	R3357-59	NRSA63J-101X	MG R	100Ω 1/16W J	
	R3360-62	QRZ0111-152	C R	1.5kΩ 1/2W K	
	R3363-65	QRG029J-103	OM R	10kΩ 2W J	
	R3366-68	NRSA63J-182X	MG R	1.8kΩ 1/16W J	
	R3372-74	NRSA63J-221X	MG R	220Ω 1/16W J	
	R3375-77	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	R3381	QRE121J-394Y	C R	390kΩ 1/2W J	
	R3391	NRSA63J-152X	MG R	1.5kΩ 1/16W J	
	R3392	NRSA63J-392X	MG R	3.9kΩ 1/16W J	
	R3393-95	NRSA63J-102X	MG R	1kΩ 1/16W J	
CAPACITOR					
	C3354-55	NDC31HJ-331X	C CAP.	330pF 50V J	
	C3356	NDC31HJ-391X	C CAP.	390pF 50V J	
	C3357	QETN1CM-107Z	E CAP.	100μF 16V M	
	C3382	QCZ0121-102	C CAP.	1000pF 3000V Z	
	C3391	QETN1AM-227Z	E CAP.	220μF 10V M	
	C3392	NDC31HJ-101X	C CAP.	100pF 50V J	
COIL					
	L3381	QQL244K-101Z	PEAKING COIL	100μH	K
DIODE					
	D3391	1SS133-T2	SI.DIODE		
TRANSISTOR					
	Q3351-53	2SC4544-LB	SI.TRANSISTOR		
	Q3391	2SA933AS/QR/-T	SI.TRANSISTOR		
OTHERS					
⚠	SK3351	QNZ0464-001	C.R.T.SOCKET		

CRT SOCKET PW BOARD ASS'Y (SAC-3510A-M2)

⚠	Symbol No.	Part No.	Part Name	Description	Local
RESISTOR					
	R3354-56	NRSA63J-221X	MG R	220Ω 1/16W J	
	R3357-59	NRSA63J-101X	MG R	100Ω 1/16W J	
	R3360-62	QRZ0111-152	C R	1.5kΩ 1/2W K	
	R3363-65	QRG029J-103	OM R	10kΩ 2W J	
	R3366-68	NRSA63J-182X	MG R	1.8kΩ 1/16W J	
	R3372-74	NRSA63J-221X	MG R	220Ω 1/16W J	
	R3375-77	NRSA63J-0R0X	MG R	0.0Ω 1/16W J	
	R3381	QRE121J-394Y	C R	390kΩ 1/2W J	
	R3391	NRSA63J-152X	MG R	1.5kΩ 1/16W J	
	R3392	NRSA63J-392X	MG R	3.9kΩ 1/16W J	
	R3393-95	NRSA63J-102X	MG R	1kΩ 1/16W J	
CAPACITOR					
	C3354-55	NDC31HJ-331X	C CAP.	330pF 50V J	
	C3356	NDC31HJ-391X	C CAP.	390pF 50V J	
	C3357	QETN1CM-107Z	E CAP.	100μF 16V M	
	C3382	QCZ0121-102	C CAP.	1000pF 3000V Z	
	C3391	QETN1AM-227Z	E CAP.	220μF 10V M	
	C3392	NDC31HJ-101X	C CAP.	100pF 50V J	
COIL					
	L3381	QQL244K-101Z	PEAKING COIL	100μH	K
DIODE					
	D3391	1SS133-T2	SI.DIODE		
TRANSISTOR					
	Q3351-53	2SC4544-LB	SI.TRANSISTOR		
	Q3391	2SA933AS/QR/-T	SI.TRANSISTOR		
OTHERS					
⚠	SK3351	QNZ0464-001	C.R.T.SOCKET		

PACKING



PACKING PARTS LIST

△ Ref.No.	Part No.	Part Name	Description	Local
1	CP30055-A02-A	TOP COVER		
2	CP30056-004-A	POLY BAG		
3	RM-C306-1A	RC HAND UNIT	(AV-32230)	
3	RM-C305-1A	RC HAND UNIT	(AV-32260)	
△ 4	LCT0951-001A-A	INST BOOK		
5	BT-51020-1Q	REGISTER CARD		
6	BT-52004-1Q	WARRANTY CARD		
7	LC10176-002B-A	CUSHION ASSY	4pcs in 1set	
8	LC10181-022A-A	PACKING CASE		
9	CM36616-001-A	CORNER LABEL	2pcs in 1set	
10	QPA02503505	POLY BAG		

# JVC

## SCHEMATIC DIAGRAMS

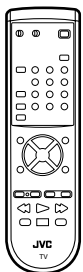
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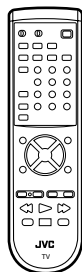
AC

**AV-32230 /G**    **AV-32260 /G**  
**AV-32230 /H**    **AV-32260 /H**  
**AV-32230 /M**    **AV-32260 /M**

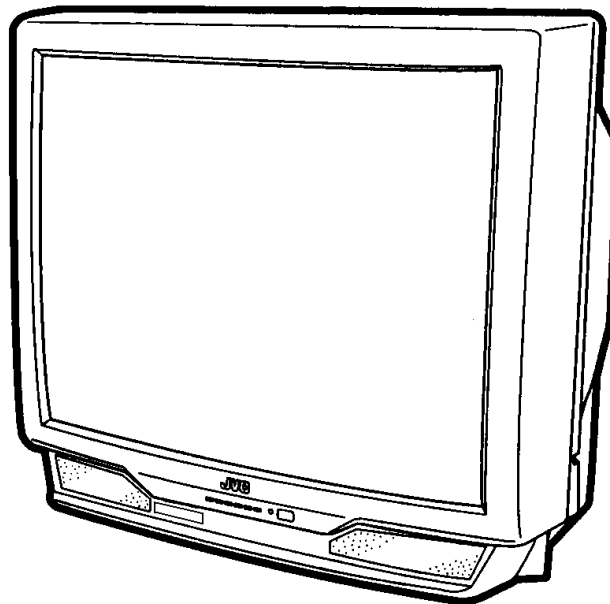
CD-ROM No. SML200103



**RM-C306**  
[AV-32230]



**RM-C305**  
[AV-32260]






# AV-32230 /G AV-32230 /H AV-32230 /M AV-32260 /G AV-32260 /H AV-32260 /M STANDARD CIRCUIT DIAGRAM

## ■ NOTE ON USING CIRCUIT DIAGRAMS

### 1. SAFETY

The components identified by the  symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

### 2. SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

- (1) Input signal : Color bar signal
- (2) Setting positions of each knob/button and variable resistor : Original setting position when shipped
- (3) Internal resistance of tester : DC 20kΩ/V
- (4) Oscilloscope sweeping time : H ⇒ 20μS/div  
: V ⇒ 5mS/div  
: Others ⇒ Sweeping time is specified
- (5) Voltage values : All DC voltage values

\* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

### 3. INDICATION OF PARTS SYMBOL [EXAMPLE]

- In the PW board : R1209 → R209

### 4. INDICATIONS ON THE CIRCUIT DIAGRAM

#### (1) Resistors

##### ● Resistance value

- No unit : [Ω]
- k : [kΩ]
- M : [MΩ]

##### ● Rated allowable power

- No indication : 1/10 [W]
- Others : As specified

##### ● Type

- No indication : Carbon resistor
- OMR : Oxide metal film resistor
- MFR : Metal film resistor
- MPR : Metal plate resistor
- UNFR : Uninflamable resistor
- FR : Fusible resistor

\* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

#### (2) Capacitors

##### ● Capacitance value

- 1 or higher : [pF]
- less than 1 : [μF]

##### ● Withstand voltage

- No indication : DC50[V]
- AC indicated : AC withstand voltage [V]
- Others : DC withstand voltage [V]

\* Electrolytic Capacitors

47/50[Example] : Capacitance value [μF]/withstand voltage[V]

##### ● Type

- No indication : Ceramic capacitor
- MY : Mylar capacitor
- MM : Metalized mylar capacitor
- PP : Polypropylene capacitor
- MPP : Metalized polypropylene capacitor
- MF : Metalized film capacitor
- TF : Thin film capacitor
- BP : Bipolar electrolytic capacitor
- TAN : Tantalum capacitor

#### (3) Coils



- No unit : [μH]
- Others : As specified

#### (4) Power Supply



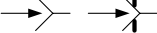
-  : B1
-  : B2(12V)
-  : 9V
-  : 5V

\* Respective voltage values are indicated





#### (5) Test point

-  : Test point
-  : Only test point display



#### (6) Connecting method

-  : Connector
-  : Wrapping or soldering
-  : Receptacle

#### (7) Ground symbol

-  : LIVE side ground
-  : ISOLATED(NEUTRAL) side ground
-  : EARTH ground
-  : DIGITAL ground

### 5. NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (  ) side GND and the ISOLATED(NEUTRAL) : (  ) side GND. Therefore, care must be taken for the following points.

- (1) Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2) Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus ( oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected , a fuse or any parts will be broken.

● Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

# CONTENTS

SEMICONDUCTOR SHAPES ..... 2-2

BLOCK DIAGRAM ..... 2-3

## CIRCUIT DIAGRAMS

P.W.B. name	Model	AV-32230	AV-32260
MAIN PWB CIRCUIT DIAGRAM		P2-5	P2-7
MAIN, FRONT CONTROL AND FRONT AV INPUT PWB CIRCUIT DIAGRAMS		P2-9	P2-11
MAIN PWB CIRCUIT DIAGRAM		P2-13	←
PIP PWB CIRCUIT DIAGRAM		—	P2-15
AV SELECTOR PWB CIRCUIT DIAGRAM		P2-17	←
CRT SOCKET PWB CIRCUIT DIAGRAM		P2-19	←
LF PWB CIRCUIT DIAGRAM		P2-20	←

## PATTERN DIAGRAMS

Pattern name	Model	AV-32230	AV-32260
MAIN PWB PATTERN		P2-21	←
AV SELECTOR PWB PATTERN		P2-23	←
CRT SOCKET AND PIP PWB PATTERNS		P2-25	←
FRONT CONTROL, FRONT AV INPUT AND LF PWB PATTERNS		P2-27	←

CHANNEL CHART [US] ..... 2-29

[CA] ..... 2-30

## SEMICONDUCTOR SHAPES

### TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

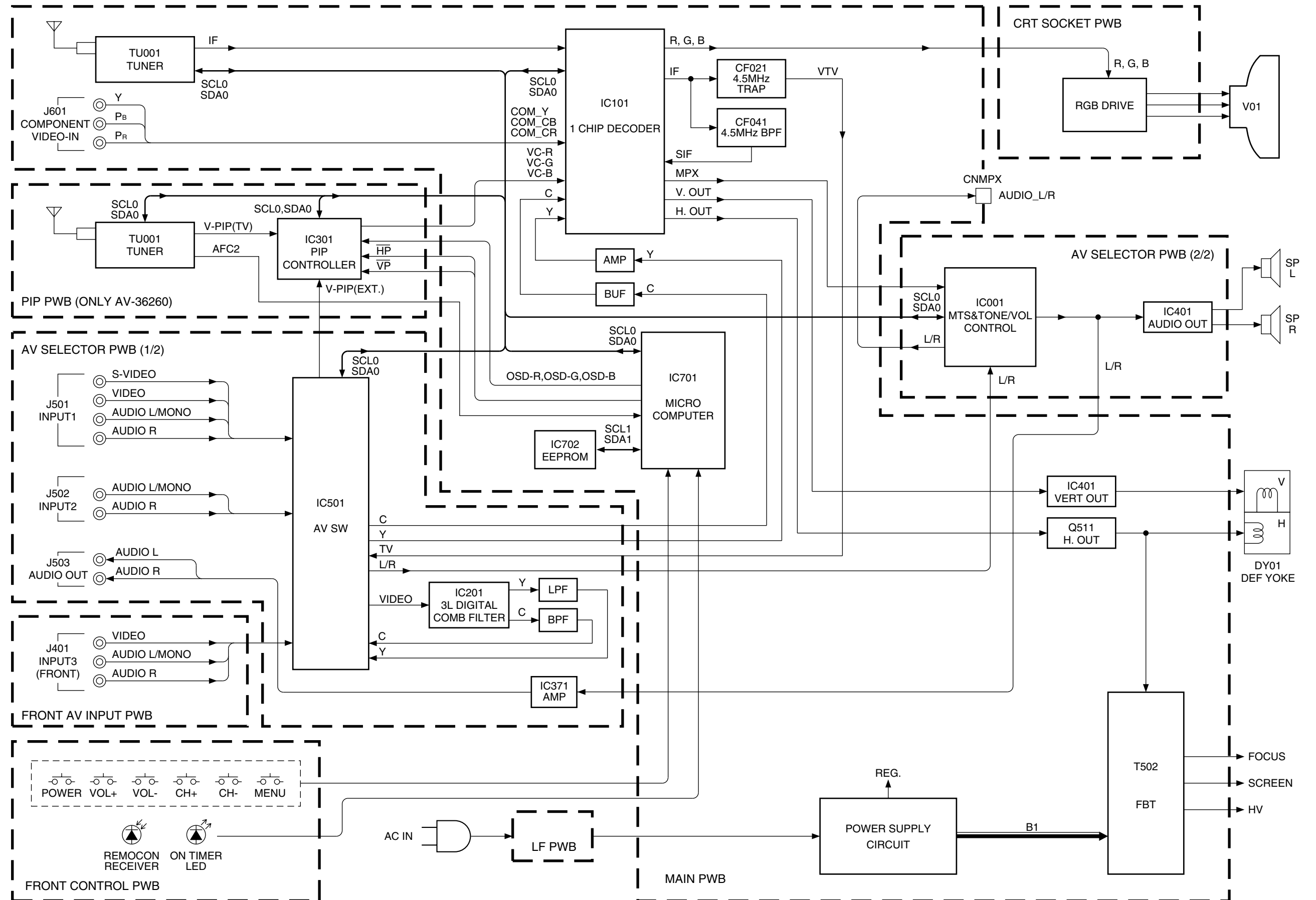
### IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW

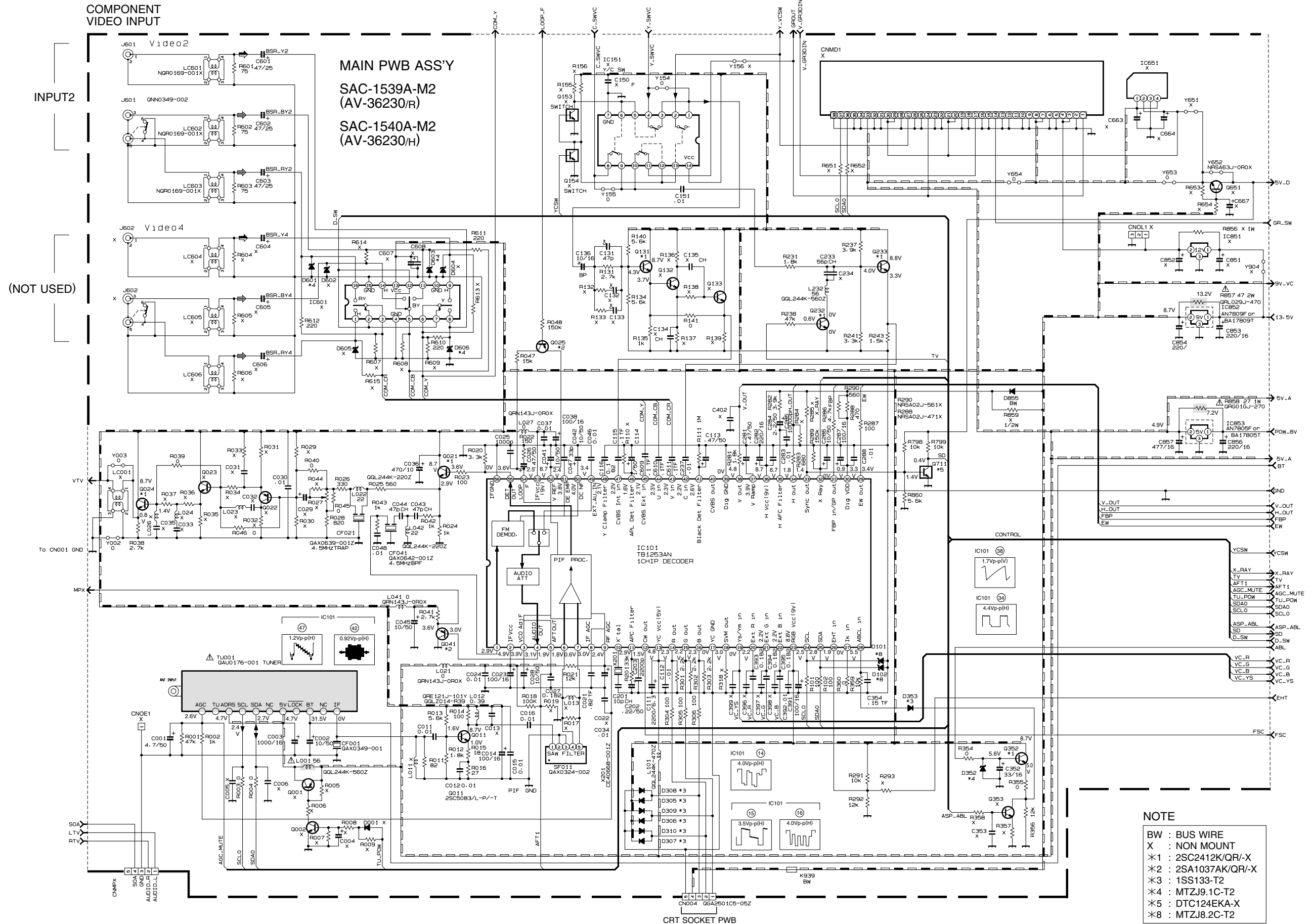
### CHIP IC

TOP VIEW		

# BLOCK DIAGRAM



### MAIN PWB CIRCUIT DIAGRAM [AV-36230]



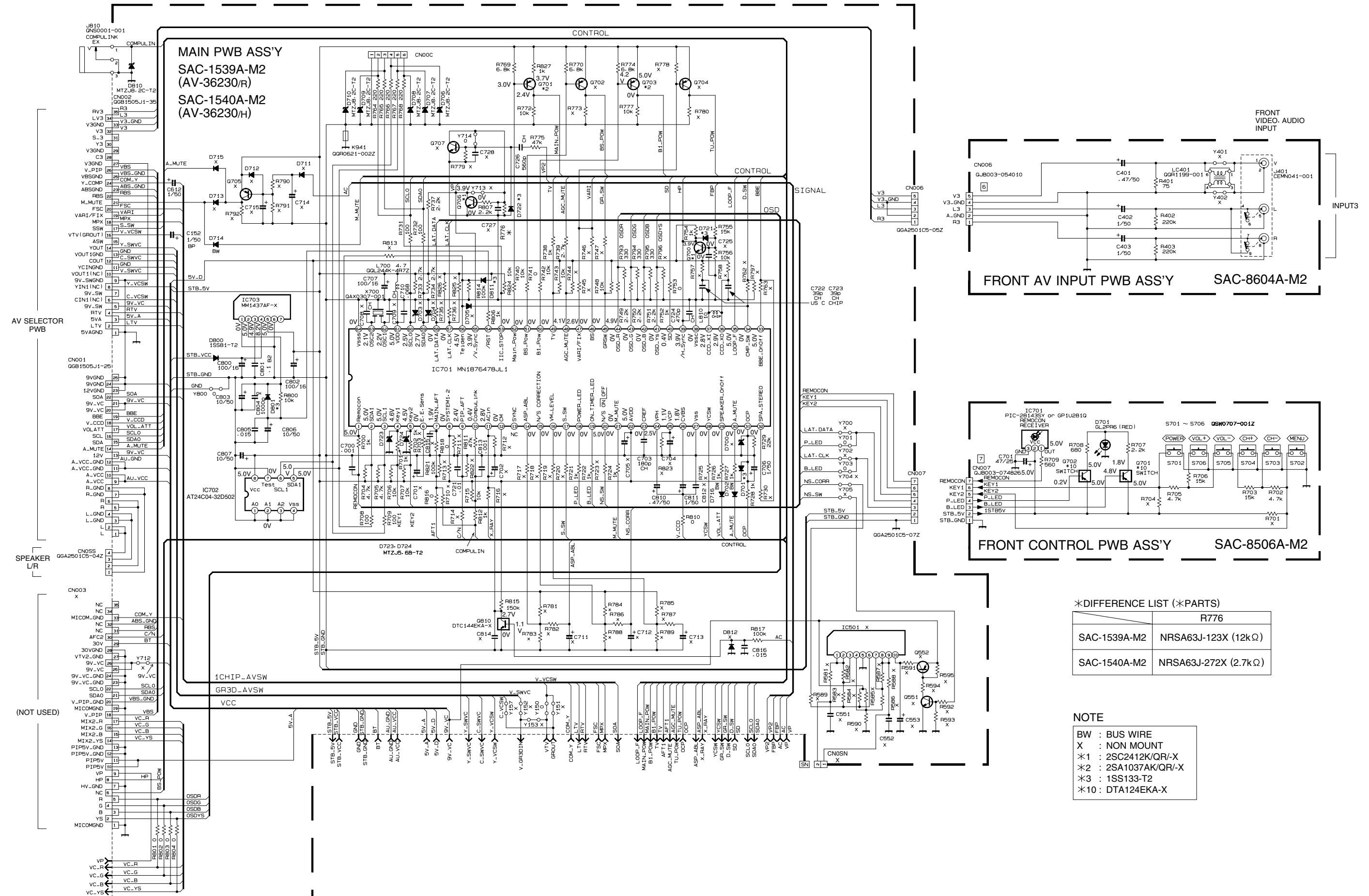
NOTE

- |    |                   |
|----|-------------------|
| BW | : BUS WIRE        |
| X  | : NON MOUNT       |
| *1 | : 2SC2412K/QR/-X  |
| *2 | : 2SA1037AK/QR/-X |
| *3 | : 1SS133-T2       |
| *4 | : MTZJ9.1C-T2     |
| *5 | : DTC124EKA-X     |
| *8 | : MTZJ8.2C-T2     |

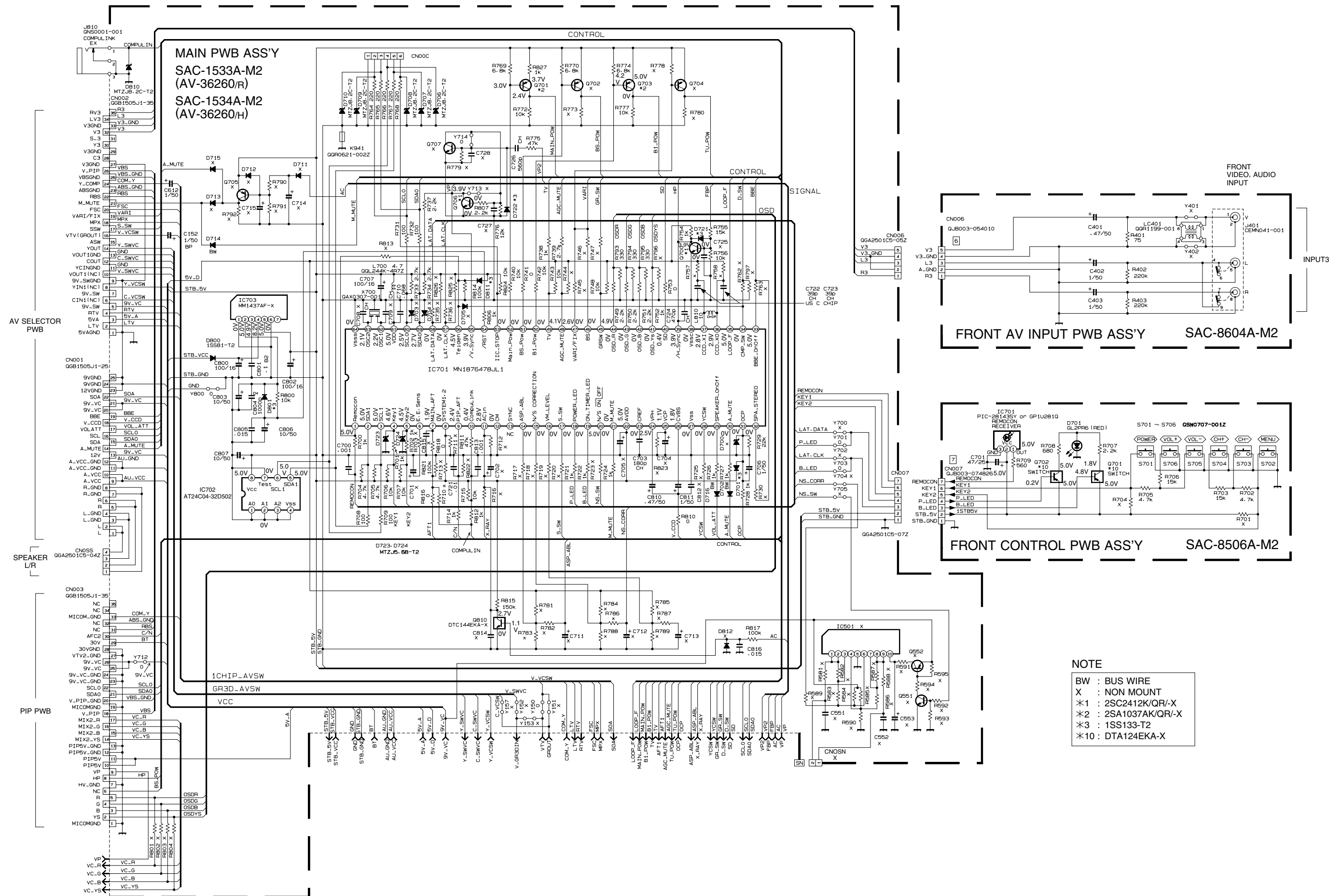
**NOTE**

BW	: BUS WIRE
X	: NON MOUNT
*1	: 2SC2412K/QR/-X
*2	: 2SA1037AK/QR/-X
*3	: 1SS133-T2
*4	: MTZJ9.1C-T2
*5	: DTC124EKA-X
*8	: MTZJ8.2C-T2

## MAIN, FRONT CONTROL AND FRONT AV INPUT PWB CIRCUIT DIAGRAMS [AV-36230]

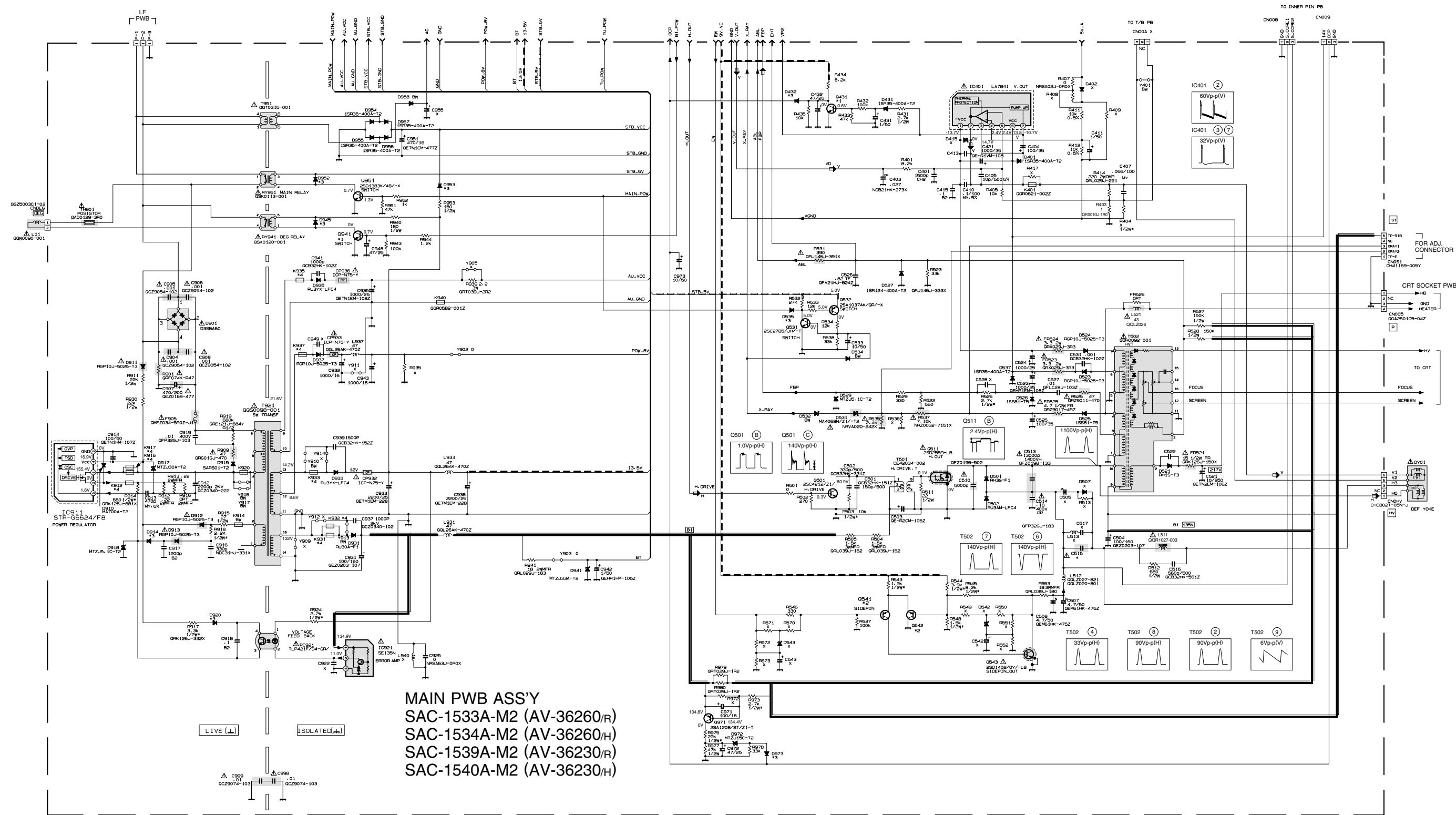


## MAIN, FRONT CONTROL AND FRONT AV INPUT PWB CIRCUIT DIAGRAMS [AV-36260]



MAIN PWB CIRCUIT DIAGRAM

AV-36230  
AV-36260  
AV-36230  
AV-36260



MAIN PWB ASS'Y  
SAC-1533A-M2 (AV-36260/R)  
SAC-1534A-M2 (AV-36260/H)  
SAC-1539A-M2 (AV-36230/R)  
SAC-1540A-M2 (AV-36230/H)

\*DIFFERENCE LIST (\*PARTS)

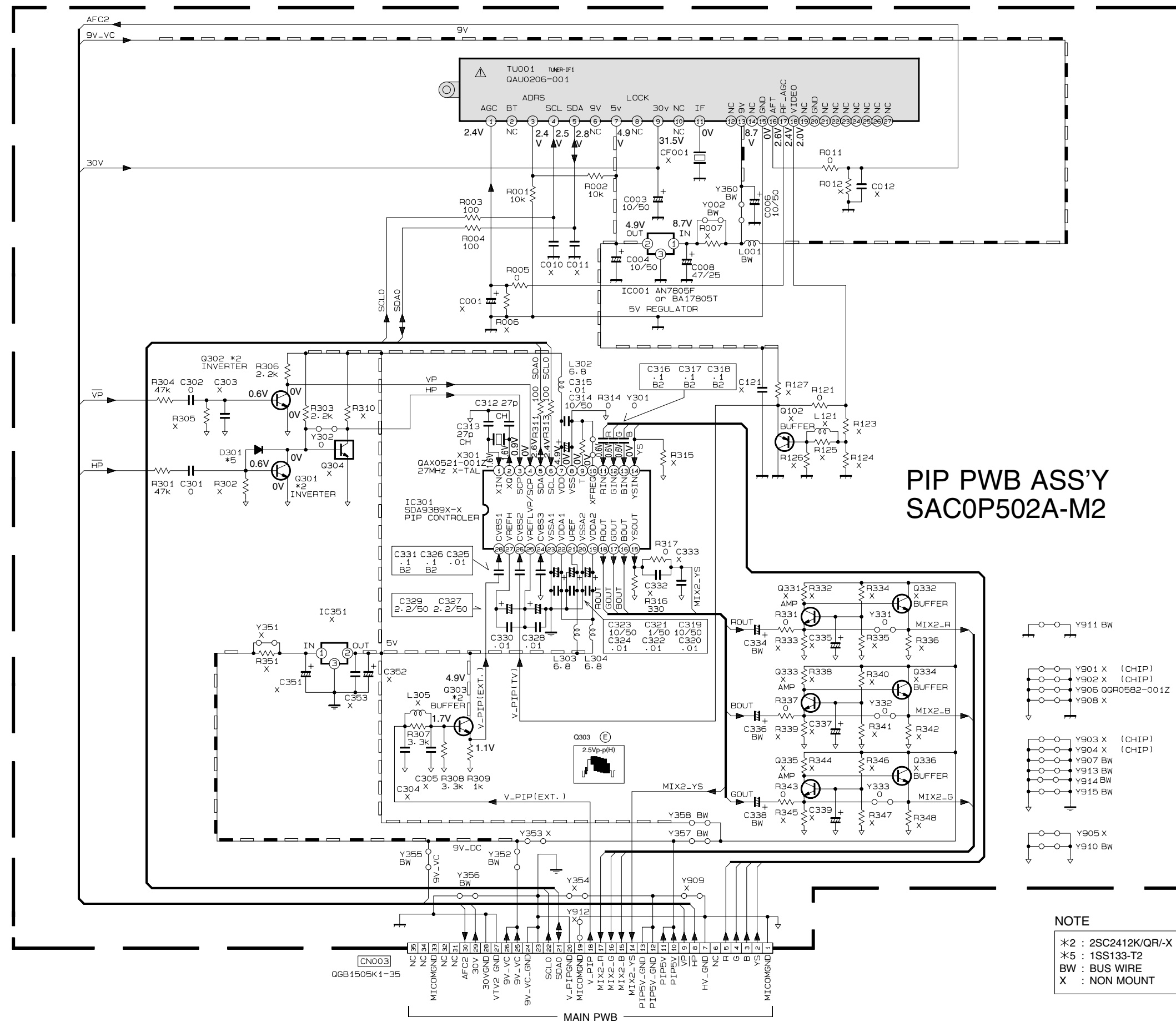
	△ C515
SAC-1533A-M2	0.62 $\mu$ F QFZ0197-624
SAC-1534A-M2	0.56 $\mu$ F QFZ0197-564
SAC-1539A-M2	0.62 $\mu$ F QFZ0197-624
SAC-1540A-M2	0.56 $\mu$ F QFZ0197-564

NOTE

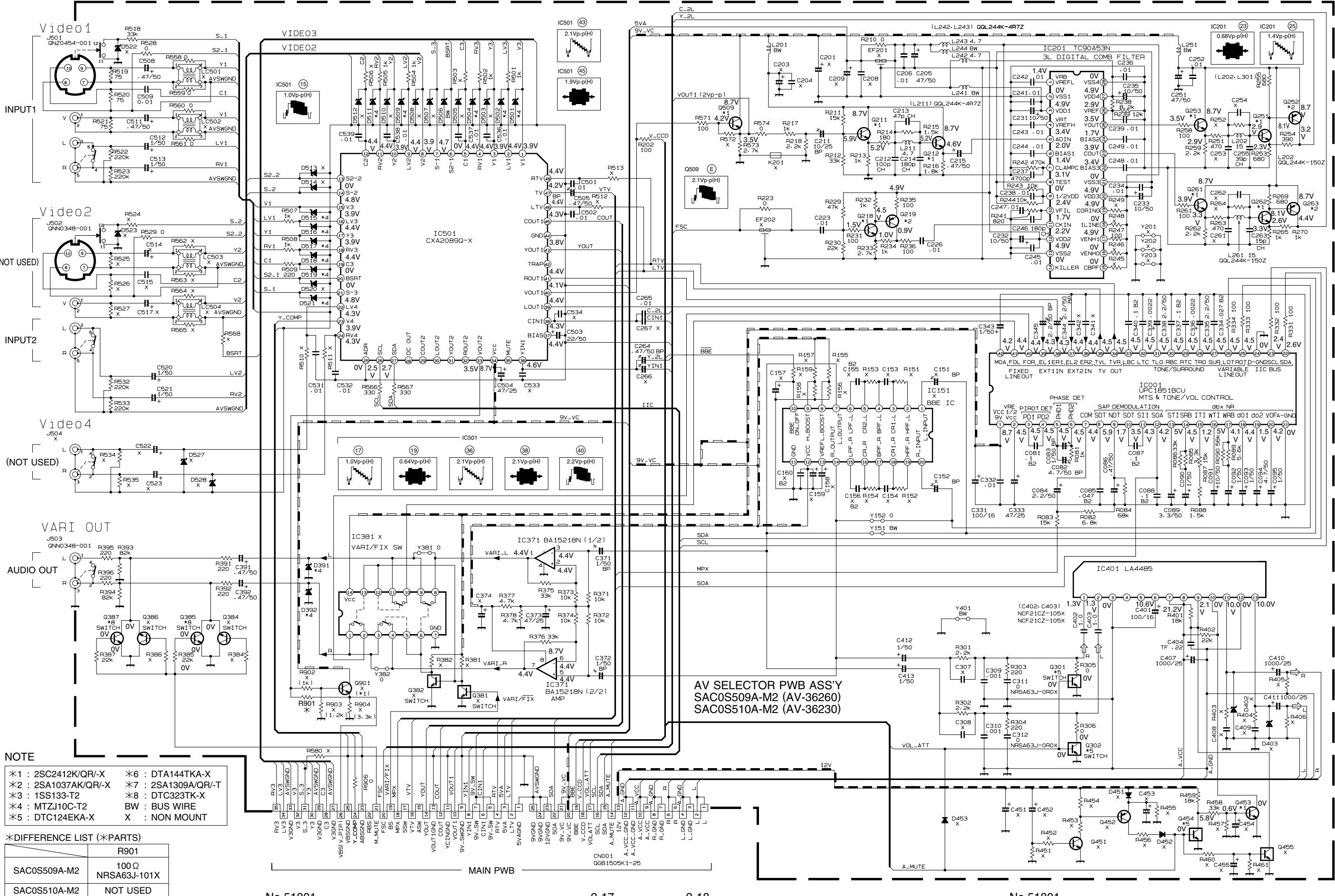
- BW : BUS WIRE
- X : NON MOUNT
- \*1 : 2SC2412K/QR/-X
- \*2 : 2SA1037AK/QR/-X
- \*3 : 1SS133-T2
- \*4 : QQR0582-001Z



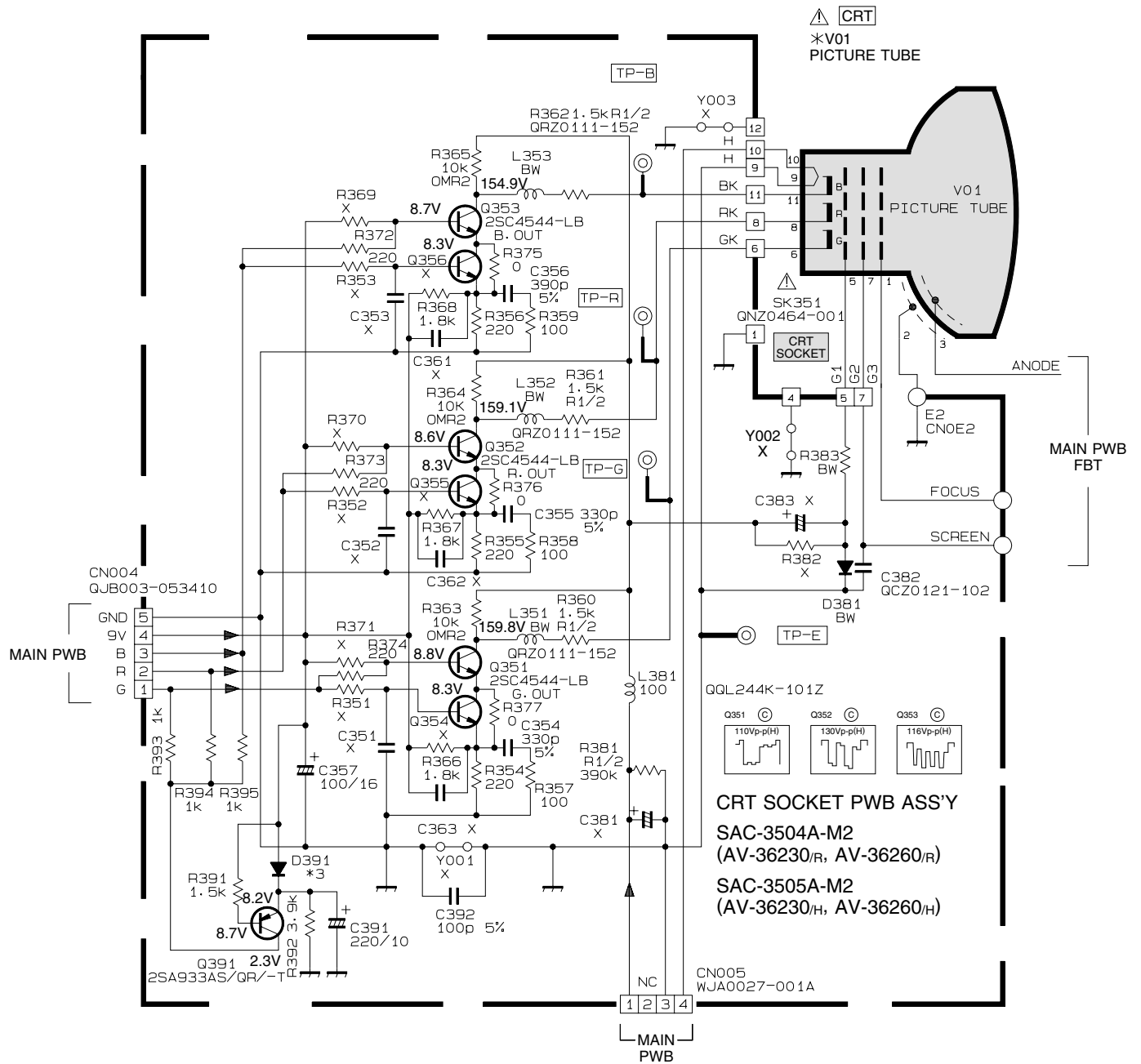
## PIP PWB CIRCUIT DIAGRAM [AV-36260]



AV SELECTOR PWB CIRCUIT DIAGRAM



# CRT SOCKET PWB CIRCUIT DIAGRAM



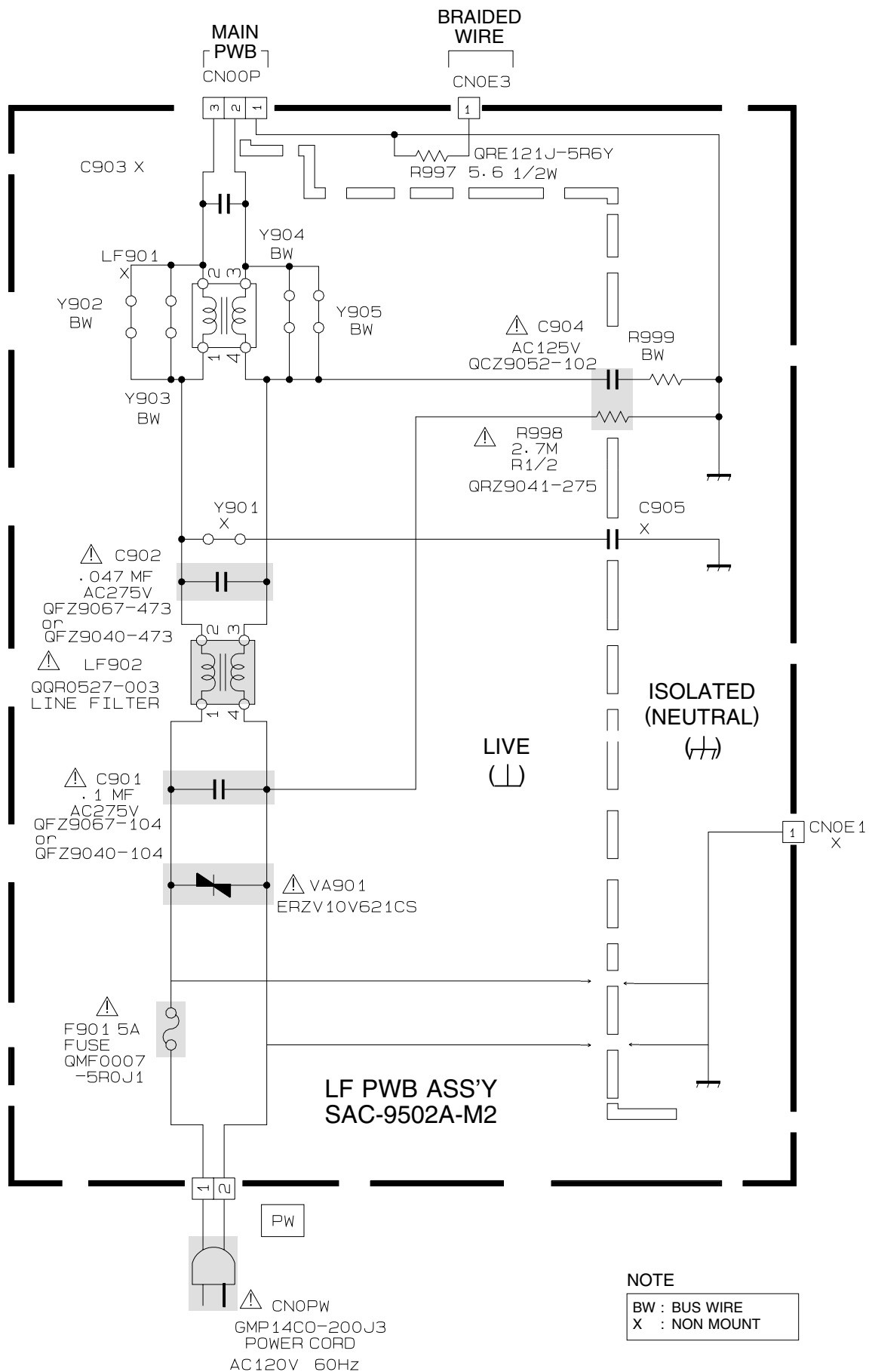
## NOTE

BW : BUS WIRE  
X : NON MOUNT  
\*3 : 1SS133-T2

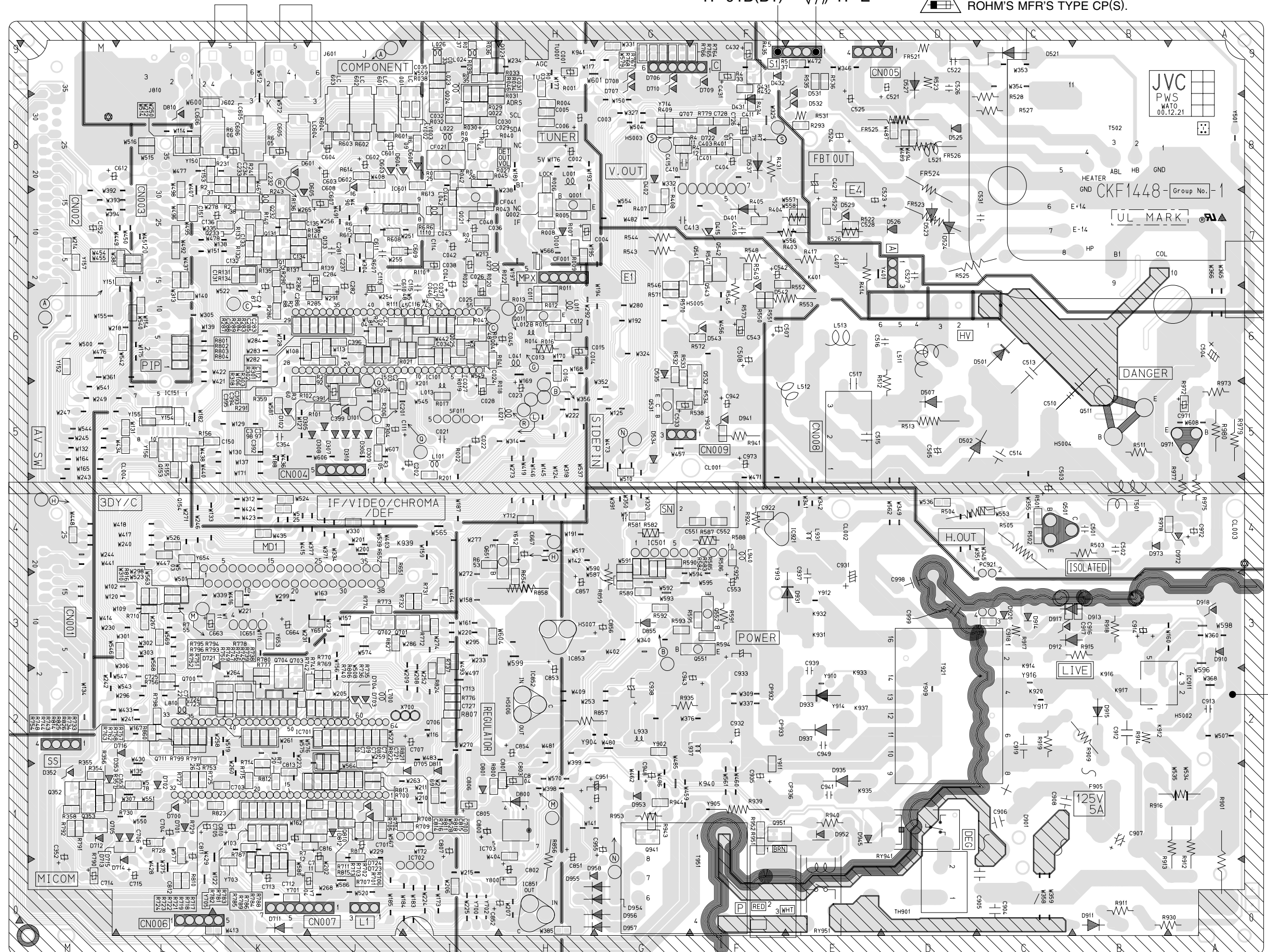
## \*DIFFERENCE LIST ( \*PARTS)

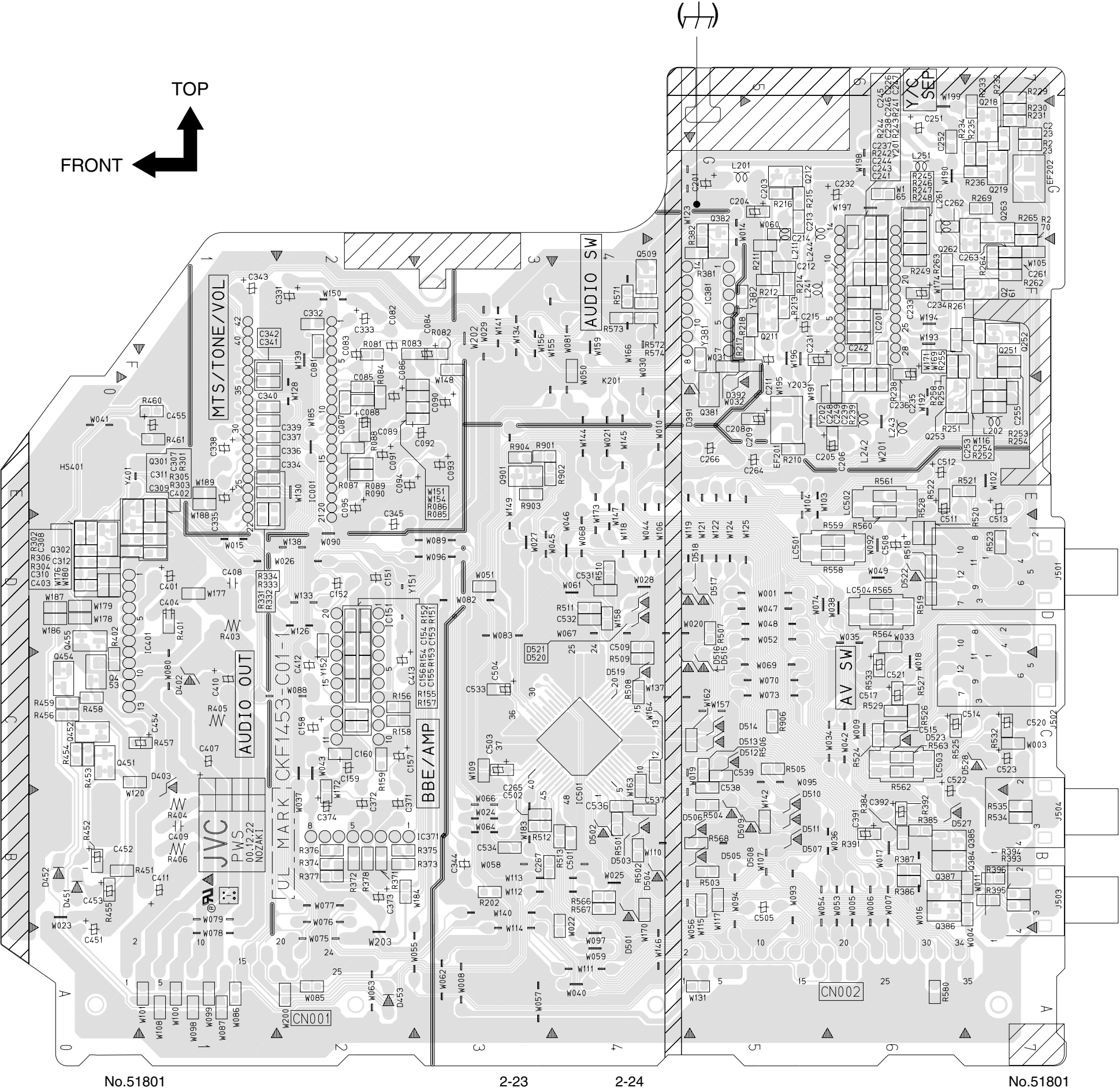
	⚠ V01 (PICTURE TUBE)
SAC-3504A-M2	A90AEJ15X01
SAC-3505A-M2	A90LPY30X04

**LF PWB CIRCUIT DIAGRAM**



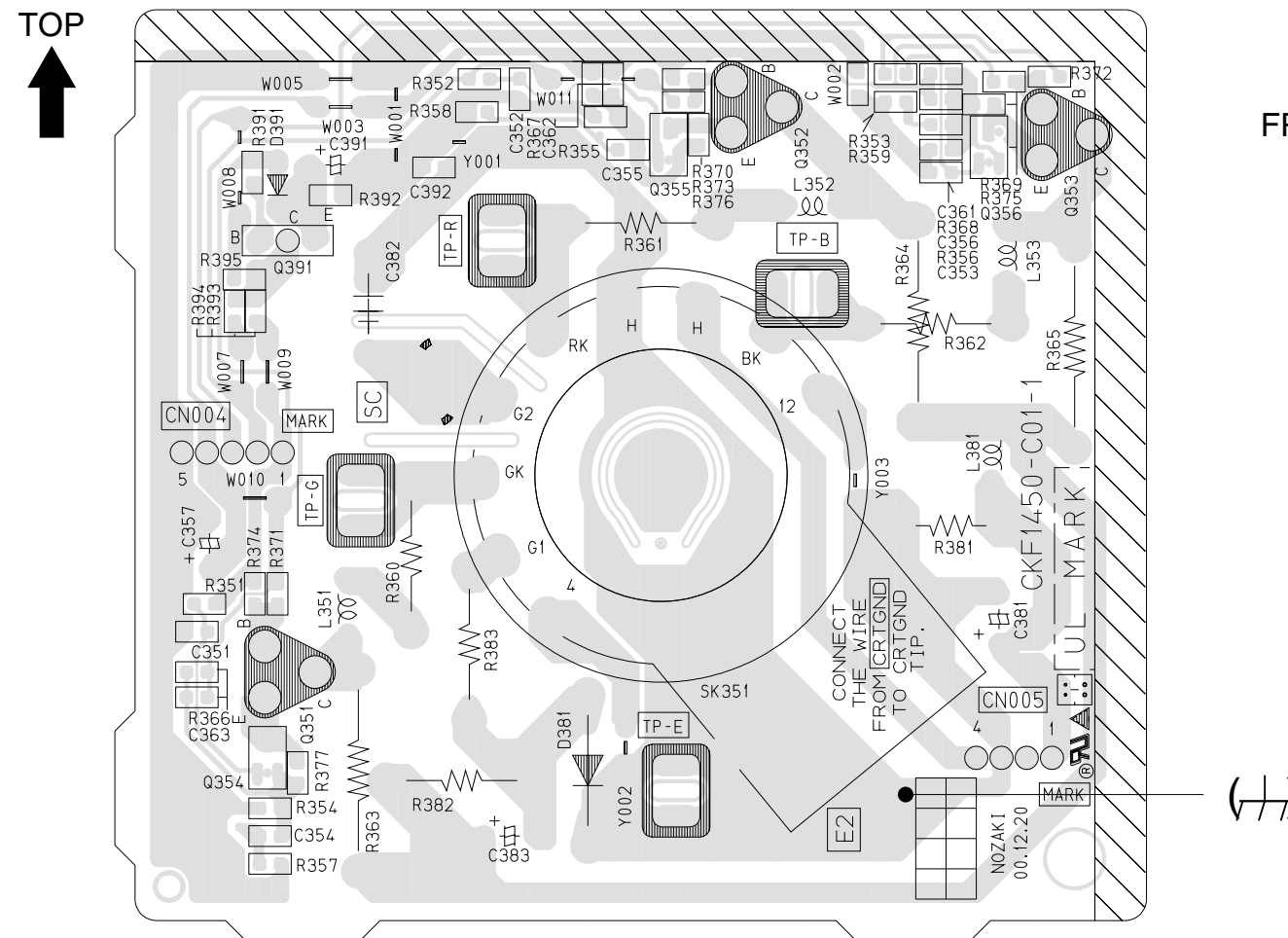
## TP-91B(B1) (77) TP-E



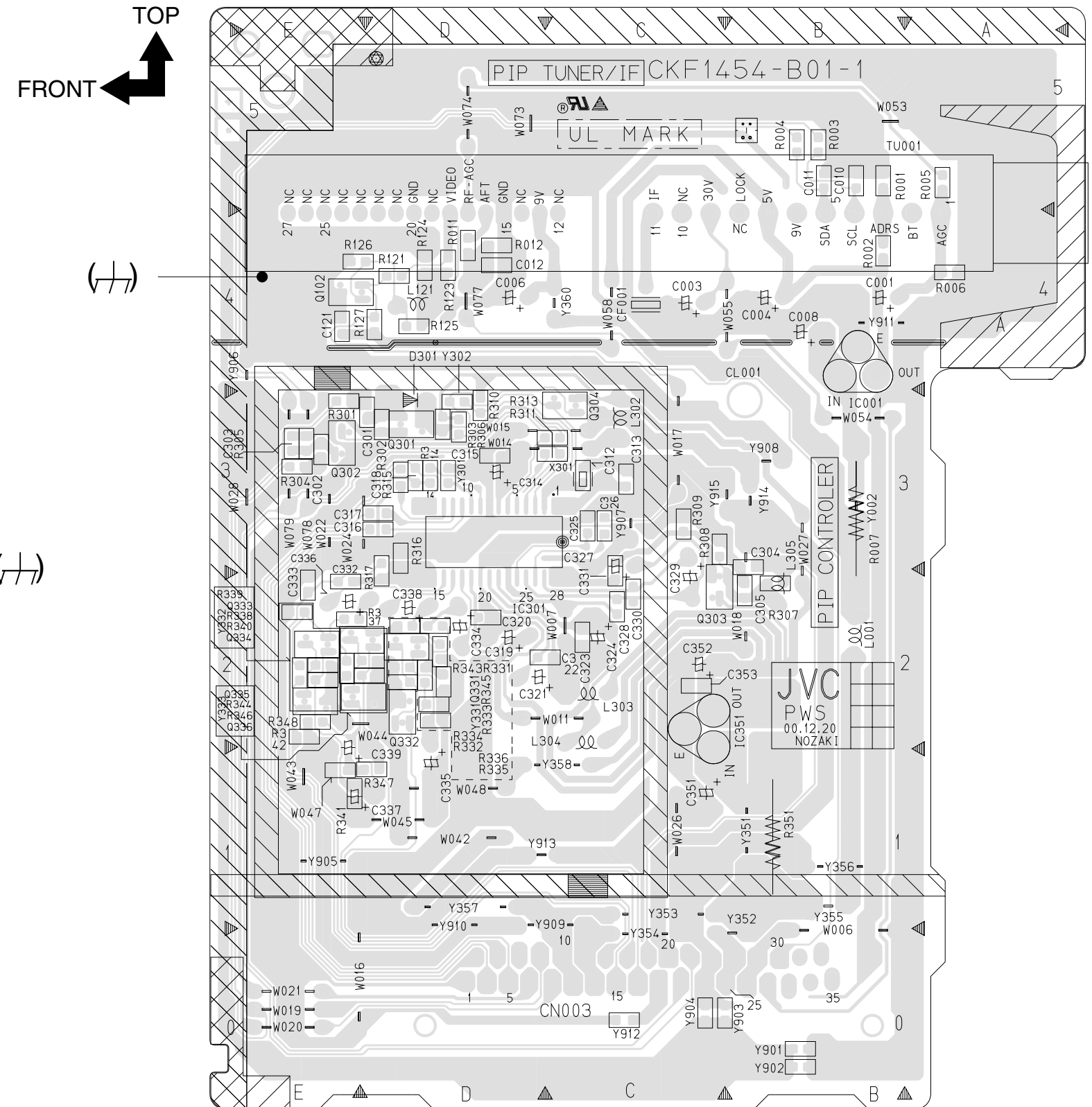


## CRT SOCKET AND PIP PWB PATTERNS

— CRT SOCKET —

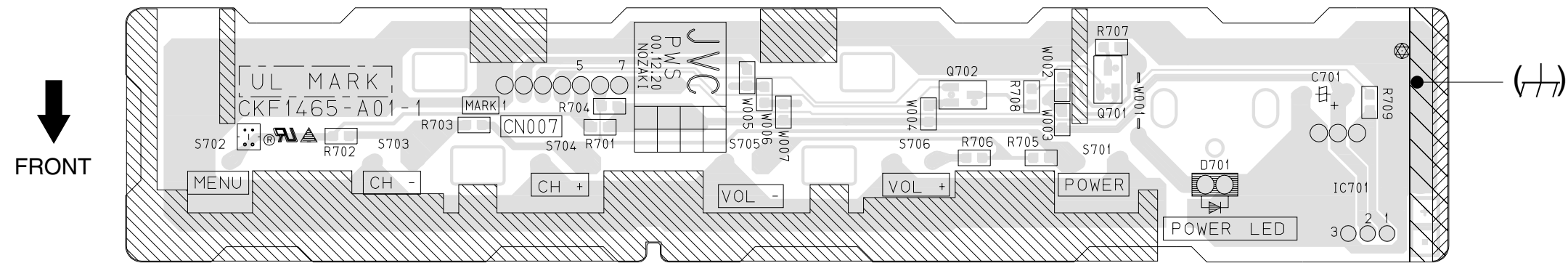


— PIP —  
[AV-36260]

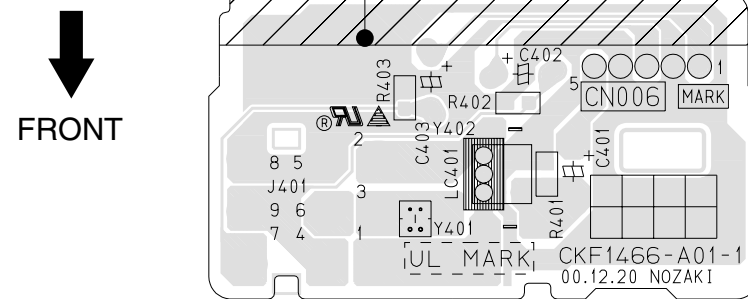


## FRONT CONTROL, FRONT AV INPUT AND LF PWB PATTERNS

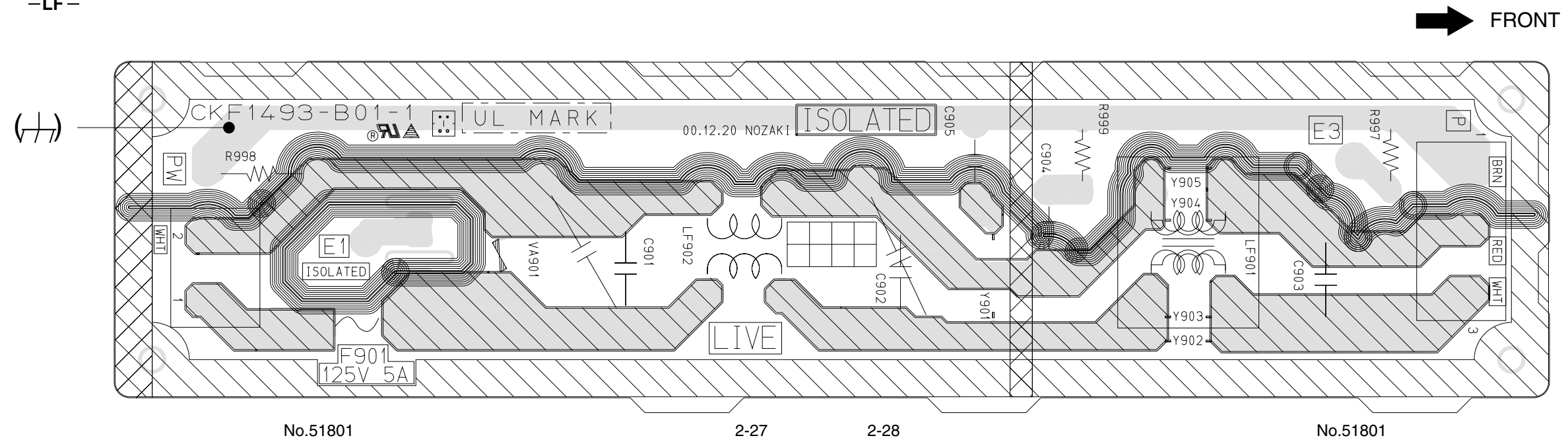
—FRONT CONTROL—



—FRONT AV INPUT—



—LF—





# CHANNEL CHART (US)

MODE		BAND	CHANNEL		TUNER BAND
TV	CATV		REAL	DISP.	
○	○	VL	02		I
			03		
			04		
			05		
			06		
		VH	07		II
			08		
			09		
			10		
			11		
			12		
			13		
×	○	MID	A	14	I
			B	15	
			C	16	II
			D	17	
			E	18	
			F	19	
			G	20	
			H	21	
			I	22	
		SUPER	J	23	
			K	24	
			L	25	
			M	26	
			N	27	
			O	28	
			P	29	
			Q	30	
			R	31	
			S	32	
			T	33	
			U	34	
			V	35	
			W	36	
		HYPER	W+1	37	IV
			W+2	38	
			W+3	39	
			W+4	40	
			W+5	41	
			W+6	42	
			W+7	43	
			W+8	44	
			W+9	45	
			W+10	46	
			W+11	47	
			W+12	48	
			W+13	49	
			W+14	50	
			W+15	51	
			W+16	52	
			W+17	53	
			W+18	54	
			W+19	55	
			W+20	56	
		ULTRA	W+21	57	
			W+22	58	
			W+23	59	
			W+24	60	
			W+25	61	
			W+26	62	
			W+27	63	
			W+28	64	
			W+29	65	
			W+30	66	
			W+31	67	
			W+32	68	
			W+33	69	
			W+34	70	

MODE		BAND	CHANNEL		TUNER BAND
TV	CATV		REAL	DISP.	
×	○	ULTRA	W+35	71	IV
			W+36	72	
			W+37	73	
			W+38	74	
			W+39	75	
			W+40	76	
			W+41	77	
			W+42	78	
			W+43	79	
			W+44	80	
			W+45	81	
			W+46	82	
			W+47	83	
			W+48	84	
			W+49	85	
			W+50	86	
			W+51	87	
			W+52	88	
			W+53	89	
			W+54	90	
			W+55	91	
			W+56	92	
			W+57	93	
			W+58	94	
			W+59	100	
			W+60	101	
			W+61	102	
			W+62	103	
			W+63	104	
			W+64	105	
			W+65	106	
			W+66	107	
			W+67	108	
			W+68	109	
			W+69	110	
		W+70	111		
		W+71	112		
		W+72	113		
		W+73	114		
		W+74	115		
		W+75	116		
		W+76	117		
		W+77	118		
		W+78	119		
		W+79	120		
W+80	121				
W+81	122				
W+82	123				
W+83	124				
W+84	125				
		SUB MID	A-8	01	I
			A-4	96	
			A-3	97	
			A-2	98	
			A-1	99	
○	×	UHF	14 { 69	IV	
TOTAL 180CH { VHF 124CH { UHF 56CH					
NOTE: TO RECEIVE THE SUBSCRIPTION OR PREMIUM PROGRAMMING FROM CERTAIN CABLE COMPANIES. SPECIAL ADAPTERS MAY BE REQUIRED.					

## CHANNEL CHART (CA)

MODE		BAND	CHANNEL		TUNER BAND
TV	CATV		REAL	DISP.	
○	○	VL	02		I
			03		
			04		
			05		
			06		
		VH	07		II
			08		
			09		
			10		
			11		
			12		
			13		
		MID	A	14	
			B	15	
			C	16	
			D	17	
			E	18	
			F	19	
			G	20	
			H	21	
			I	22	
×	○	SUPER	J	23	III
			K	24	
			L	25	
			M	26	
			N	27	
			O	28	
		HYPER	P	29	
			Q	30	
			R	31	
			S	32	
			T	33	
			U	34	
			V	35	
			W	36	
		ULTRA	W+1	37	IV
			W+2	38	
			W+3	39	
			W+4	40	
			W+5	41	
			W+6	42	
			W+7	43	
			W+8	44	
			W+9	45	
			W+10	46	
			W+11	47	
			W+12	48	
			W+13	49	
			W+14	50	
			W+15	51	
			W+16	52	
			W+17	53	
			W+18	54	
			W+19	55	
			W+20	56	
			W+21	57	
			W+22	58	
			W+23	59	
			W+24	60	
			W+25	61	
			W+26	62	
			W+27	63	
			W+28	64	
			W+29	65	
			W+30	66	
			W+31	67	
			W+32	68	
			W+33	69	
			W+34	70	

MODE		BAND	CHANNEL		TUNER BAND
TV	CATV		REAL	DISP.	
×	○	ULTRA	W+35	71	IV
			W+36	72	
			W+37	73	
			W+38	74	
			W+39	75	
			W+40	76	
			W+41	77	
			W+42	78	
			W+43	79	
			W+44	80	
			W+45	81	
			W+46	82	
			W+47	83	
			W+48	84	
			W+49	85	
			W+50	86	
			W+51	87	
			W+52	88	
			W+53	89	
			W+54	90	
			W+55	91	
			W+56	92	
			W+57	93	
			W+58	94	
			W+59	100	
			W+60	101	
			W+61	102	
			W+62	103	
			W+63	104	
			W+64	105	
			W+65	106	
			W+66	107	
			W+67	108	
			W+68	109	
			W+69	110	
			W+70	111	
			W+71	112	
			W+72	113	
		W+73	114		
		W+74	115		
		W+75	116		
		W+76	117		
		W+77	118		
		W+78	119		
		W+79	120		
W+80	121				
W+81	122				
W+82	123				
W+83	124				
W+84	125				
		SUB MID	A-8	01	I
			A-4	96	
			A-3	97	II
			A-2	98	
			A-1	99	
○	×	UHF	14 } 69		IV
TOTAL 180CH { VHF 124CH { UHF 56CH					
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